ABSTRACTS
OF THE
Lettsomian Lectures
ON
DISEASES OF THE TESTICLES AND THEIR COVERINGS.

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LECTURE II.—PART II.

DEVELOPMENT OF SPERMATOZOA, MALFORMATION AND MALPOSITION OF THE TESTICLES, ETC.

THE anatomy of the testicle having been dismissed by means of diagrams and specimens, the development of spermatozoa was demonstrated by Dr. Heneage Gibbes, the different stages being clearly demonstrated by means of his beautiful specimens shown under the high powers of Messrs. Beck's microscopes. The seminiferous tubules consist of a membrana propria, which is an endothelial nucleated membrane, in which are the germinal cells in several layers. These cells consist of: (A) Resting cells, which are large cells with an oval transparent nucleus, with a distinct outline and thickenings in the reticulum forming the so-called nucleoli; these cells are few in number compared to the other cells, and are generally situated near the membrana propria. (B) The active or mother cells, which have a rounded nucleus containing a network of thick, rod-like convolutions; A and B cells occupy the outer part of the seminal tubes. (C) Projecting into the lumen of the tube are seen smaller cells, with network faintly visible; these are the daughter cells derived from the division of the mother cells. The active or mother cells contain, as already stated, a convolution in their nuclei of thick rod-like structures; these form star-like shapes, and gradually separate into two parts; the protoplasm of the cell then divides, and in this manner two daughter cells are formed; these daughter cells have their protoplasm pushed out in a bag-like form on one side; this gradually becomes elongated, and forms the body of the spermatozoon, while the nucleus, becoming of an oval shape, forms the head. The division of the nucleus before the protoplasm of the cell has divided is well seen under the large microscope.

Dr. Gibbes from his original researches has found the spermatozoon of the Salamandra maculata to consist of a long pointed head, at the base of which is an elliptical structure which joins the head to a long filiform body; a fine filament which, longer than the body, is connected with this latter by a narrow undulating homogeneous membrane. The elliptical structure at the base of the head connects it with the long thread-like body, and the filament seems to spring from it. In mammalian spermatozoa, Dr. Gibbes has demonstrated that the same parts exist, but are difficult to show owing to their minuteness.[1]

Malformation and Malposition of the Testicles.—Men have been said to possess more than two testicles, but the cases have not been verified by dissection. In some instances the testicle is absent, but the epididymis and vas deferens are present; in others the vas deferens only is present, or they may all three be absent. In G. St. Hilaire's remarkable case, the scrotum was bifid, the two supra-renal capsules, the two kidneys, and the two testicles were within the abdomen, where they were united in the middle line. The spermatic vessels, vesiculæ seminales, and vasa deferentia were present. Sir James Paget has pointed out that the testicle and its ducts are developed independently of one another, and that the former does not atrophy when its duct is absent or diseased. Sir A. Cooper divided the spermatic artery and vein on one side and the vas deferens on the other in a dog. In the former case the testis sloughed away, in the latter the testis became somewhat hypertrophied; the dog was twice seen *in coitu*, but the female did not conceive. When the vasa deferentia are divided the animal develops sexual characteristics, but is not prolific. The testicle may be detained within the abdomen, in the inguinal canal, or just without it in the groin, also in the crural region, or in the perineum. A late descent of a testicle is often associated with rupture; the testicle shown was lying loose in the inguinal canal, no gubernaculum testis being attached to it. The pampiniform plexus was loosely attached to the testicle, which was associated with a congenital inguinal hernia. Adhesions form between the testis and abdominal contents from internal inflammation. The ring may be too small to allow the testicle to pass, but may become dilated later on. Hunter thought that when both testes were retained within the abdomen they were small, ill-developed, and unfruitful. The microscope demonstrates the absence of spermatozoa. Animals with retained testes are capable of unfruitful intercourse. With one testicle retained the man is called a mon-orchid, and has spermatozoa in the testicle and vesiculæ seminales of the sound side but not in the defective side, and can beget children. When both glands are retained he is a crypt-orchid, and is sterile.[2] Mr. Curling has recorded nine cases in which the ejaculated semen of men with retained testes, or with a single detained testis, the other having been removed or its duct obstructed, was destitute of spermatozoa. In a testicle removed from a man suffering from strangulated hernia, Mr. Curling found spermatic cells in the testicle undergoing metamorphosis into spermatozoa, and fully formed quiescent spermatozoa in the fluid from the epididymis. It is as well in some cases to keep the testicle within the canal, out of harm's way, by means of a truss; in others, associated with a rupture, to allow the rupture to force the testicle down past the external ring, and then to apply a truss which will keep the testicle down and the hernia up within the abdomen. Mr. J. Wood's practice is very sound in these cases. He removed the right testicle, which was retained in the inguinal canal, dissected up the sac of the hernia, which was of the congenital inguinal variety; then, having tied the neck of the sac high up with strong carbolised catgut, he brought the sides of the inguinal canal together, by passing thick silver wire through the external and internal pillars of the ring, as in his usual operation for the radical cure of hernia. In a similar case associated with a *strangulated* hernia, Mr. Wood removed a useless testicle, relieved an acutely strangulated hernia, and performed the operation for its radical cure. Both operations were done antiseptically. The swelling somewhat resembles a bubonocele, or an encysted hydrocele of the cord. It is hard, and shoots backwards and forwards, being easily passed into the inguinal canal, but reappears as readily; and on pressing it testicular sensation is complained of. The scrotum is undeveloped on that side. The penis appears to be larger when viewed from the affected side. The patient is often aware of the existence of an abnormality. A hernial impulse is wanting unless a rupture be also present; a hydrocele is transparent, and fluctuates. In a case of acute inflammation of a retained testicle the symptoms may resemble those of a strangulated hernia. There is a good deal of pain, rendering the examination difficult and imperfect, with vomiting, constipation, and constitutional derangement. There will still be the history to guide the surgeon, and the absence of the testicle on the painful side. The local symptoms may be more severe and the constitutional less severe than in cases of hernia; the bowels, however, can be cleared in such a case by a purgative enema. The late Mr. Partridge removed a testicle from the perineum after having failed to replace it in the scrotum. Mr. James Adams,[3] of the London Hospital, narrates a case in which he dissected up the tunica vaginalis and testicle from the perineum of an infant and placed them in a scrotal pouch. In these cases, if an operation be deemed advisable, I think it better to wait until the child is older, and to perform it antiseptically, as in my experience operations on the tissues about the pelvis, for the rectification of malformations are risky. When older the patient is stronger, the testicle not much larger, and the funicular process of the tunica vaginalis is more likely to be obliterated. The testicle sometimes traverses the crural canal. When the testicle is inverted, the epididymis and vas deferens run along the anterior part of the gland, the free surface of which looks backwards; if a hydrocele form, it will therefore be at the back instead of the front of the testicle. Reversion takes place when the testis is suspended by the tail of the epididymis, its head being below. Mr. Page of Carlisle and

[1] Klein and Noble Smith, Atlas of Histology; Gibbes, Quarterly Journal of Microscopical Science, vols. xix., xx.

[2] Brit. and For. Med.-Chir. Rev., 1304.

[3] THE LANCET, 1871.

Mr. Wood have reported cases in which one testicle was absent and the other hypertrophied. In some young cases the testes fail to develop at puberty, in old age they atrophy. Wasting of the gland has been met with in idiots, after injuries to the head, from the pressure of ill-fitting trusses, but most often after acute orchitis. Division or a blocking of the spermatic artery by the pressure of an aneurism will also cause wasting. Sir B. Brodie[4] states "that a part not used will waste, so it is with the testicles and other organs." Most observers are, however, agreed that the testicles do not waste in men who are continent. Paraplegia following injury induces fatty degeneration of the testicles. Inflammation following injury or mumps, new growths within the tunica vaginalis, or a severe injury, will disorganise the gland. A slight wound of the tunica albuginea had better be stitched up with fine catgut. Mr. Hilton[5] gives as the signs of ruptured vas deferens sudden and violent pain after severe exertion or a blow, bleeding from the urethra and not into the bladder; pain or tenderness of the testicle and abdomen where the vas crosses the ureter. If the vas is divided with wound of the skin stitch its ends together. The vas deferens when obstructed may swell and form a small cyst containing spermatozoa (spermatocele). In some instances the testis is so irritable that the patient is unable to bear the least touch; it must then be protected by a well-lined suspender. When neuralgic the attacks come and go, and the testis will bear handling. The various tonics and sedatives, internally and externally, are to be tried. Pain, vomiting, irritability of the bladder, and retraction of the testicle, are present when a stone passes along the ureter. Such accurate observers as Professor Humphry and Dr. Lockhart Clarke have met with cases of impotence after injury from a railway collision. After concussion of the spine sexual power may be regained. In cases of double varicocele spermatozoa have been found wanting. In some instances sexual debility may be due to a central cause. The section of the retained testis under the microscope shows great thickening of the membrana propria of the tubes, the cells lining which do not appear to have been functionally active. In wasting diseases the spermatozoa are few in number. In double syphilitic orchitis patient and energetic treatment is followed by a good result, as well as in those cases where the spermatic duct is obliterated by deposit after epididymitis. The testis must be saved in cases of benign fungus, as a portion still secretes. From Juvenal's "Satires" we gather that it was an old belief that eunuchs were capable of sexual intercourse. Professor Humphry[6] records the case of a married man who suffered such severe symptoms after connexion that he had his testicles removed. He had connexion and emissions for a year, though less frequently, and then desire gradually ceased. Similar cases are reported by Sir A. Cooper and others. Sterility may be due to defective secretion of the testicles owing to debility from illness, excessive sexual indulgence, or from atrophy or want of development of the gland. Many of its causes have been already mentioned when considering malformations, malpositions, and various lesions of the testicle. Obstruction consequent on epididymitis is a common cause of sterility, although the patient is not impotent. The vas deferens may be blocked by a tubercular deposit, as in the specimen shown; the patient died of acute tubercular meningitis, and the question of the possibility of the absorption of tubercular matter suggests itself to our notice. There are several specimens of an excessive dilatation of the vesiculæ seminales and tuberculous abscesses of them and of the prostate leading to degeneration. Dr. Goodhart[7] showed a specimen at the Pathological Society of the obliteration of one vas deferens after lithotomy in a child. Mr. Teevan[8] has also recorded cases showing injury to the ducts after lateral lithotomy. When the testicle is crushed, as in the specimen shown, the gland is quite destroyed. My brother, Dr. John H. Bell, has communicated to me the case of a monomaniac who removed with a blunt pair of nail scissors the whole of the external genitals, including the scrotum, penis, and testicles. The hæmorrhage was great, but would have been greater had a sharp instrument been used. He grew fat and sleek, and sank into a state of satisfied imbecility.

Some interesting casts were shown illustrating malformations and injuries of the penis as bearing on the subject.

[4] Clinical Lectures.
[5] Mr. J. Birkett on Injuries to Pelvis; Holmes's System of Surgery.
[6] Holmes's System of Surgery.
[7] Path. Trans., 1876. [8] Clin. Soc. Trans., vol. vii.

A HOSPITAL AND ACCIDENT AMBULANCE SERVICE FOR LONDON.[1]

BY BENJAMIN HOWARD, A.M., M.D., F.R.C.S.E.

IT is now over seventeen years ago since the first ambulance system ever established had its earliest opportunity of proving its value as a distinct organisation. On that occasion, when over 10,000 men lay on the field about Antiatam, by the sudden disability of Dr. Letterman, the supreme responsibility was by special order placed upon me. Thus initiated in a work in which my interest has been active from then till now, it was, I can assure you, in no spirit of criticism I called attention when in London three years ago, and again in the medical journals last July, to the manifest need of an ambulance system in this *quasi*-battlefield of London.

The committee of the London Hospital having upon my urgent representations decided last September to adopt a hospital and accident ambulance service, and having now further arranged for a conference of the other general hospital authorities with themselves within a few days, to be presided over by H.R.H. the Duke of Cambridge, to consider the organisation of a hospital and ambulance system for London, it has been deemed of first importance that, in advance of this public meeting, the whole question be submitted to this Society, which so largely represents the profession of the entire metropolis. As briefly as I may therefore, after glancing at some general reasons for an ambulance system, I will allude to the pre-eminent force of these and other reasons when applied to this particular locality; will give some account of the different systems already in operation or adopted in other cities; describe the system recently initiated at the London Hospital; and lightly touch upon such points as are likely to invite special attention in the future determination of such system or systems as may be practicable and best for this heterogeneous and unparalleled metropolis.

Some general reasons for an accident ambulance system.—The influence of a right or wrong first care, and good or bad transportation, not only in surgical but in many medical emergency cases, towards determining the recovery or death of the patient, it is not easy to exaggerate. In the present absence of system, the earliest diagnosis between apoplexy and "drunk and incapable" is made by the policeman. The treatment on the spot is as miscellaneous as the rival sympathisers can make it. As regards transportation, this, in two or three respects, has, since the Middle Ages, been slightly modified. The police stretcher or the shutter formerly carried by the hands, with the advantages of suspension, is now more usually borne upon the shoulders of unequal men, with the unavoidable hoisting, lowering, jolting, risk, exposure, and fright. A wheelbarrow litter has lately been occasionally used, in a description of which, under the head of "Police Cruelty," the London LANCET, has denounced it as "worse than useless from every medical standpoint." A vivid description of the scenes attending an average transportation in these ways of a criminal or a patient may be found in a pamphlet published last November by Mr. Harrison of Liverpool. The other modification which I would fain not even mention is the cab familiarly known as the "growler." In other respects, while the treatment of emergency patients within the hospital has in every particular marvellously progressed, the provision for their first care on the spot and their transportation to hospital are in the main what they were a century ago. Whatever the sex, age, rank, be the case one of cardiac syncope or apoplexy, of fracture, dislocation, or "drunk and incapable"; whether the one or the other of the means of transportation above-mentioned be used, is left exclusively to the indiscrimination and convenience of the policeman. For the worst fracture in the most distinguished patient there is no choice in removal except risking his reputation on the police stretcher or his life perhaps in the impossible cab. For assurance against volunteer maltreatment of emergency cases and street accidents on the spot; against detention or rejection at the nearest hospital; for assurance that the first case shall be prompt, exclusive, skilful; that the transportation shall combine ease with seclusion, the

[1] Read before the Medical Society of London, Jan 30th, 1882.

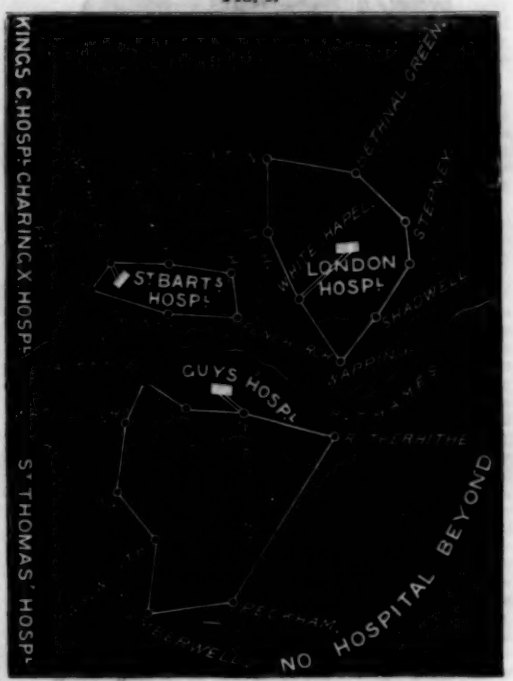
only resource, according to experience, is such co-operation of police, hospital, and other authorities as is implied in a hospital and accident ambulance system.

The importance of an ambulance system for London pre-eminently, as compared with other cities.—The considerable proportion of the twenty-two thousand patients received into five only of the London hospitals in 1880, and all of the nearly three thousands due to horse and vehicle accidents that same year, form but a fraction of the emergency cases whose annual aggregate is vastly greater in London than in any other metropolis. Not only the volume of the traffic, with its dangers, excitements, and delays, but the distances patients frequently have to traverse to reach the nearest hospital, are greater than in any other city. Owing to the unequal distribution of the general hospitals, a fracture from the site of the accident within the registration area to the nearest general hospital, notably if to the London, to Guy's, or to St. Thomas's Hospitals, may have to be transported four to seven miles. This fact gives not only magnitude to the estimate of the avoidable evils arising from the absence of an ambulance system, but to all the reasons which suggest themselves for the adoption of such a system.

An account of the leading points in the ambulance systems working or projected in other cities.—Although the manner of working is not in each city alike, in all cases there are four invariable factors: these are the police, the hospitals, the horse ambulance carriages, and the electrical communication. The points of difference in different cities concern chiefly the location and *personnel* of the ambulance carriage. In Chicago the principal hospital is at the outskirts of the city. With the police stations of course it is otherwise, and at these the ambulances are kept. The *personnel* consists of policemen only. For the ambulance summons a unique provision exists. At the corner of numerous streets are what resemble the ordinary pillar post in miniature. Any one of several keys kept in the houses or shops in the immediate vicinity of one of these posts on being introduced into the keyhole of its corresponding post, sounds an ambulance alarm at the police station of that particular district, and as quickly as it could be done by a fire engine the ambulance at a gallop appears on the spot. As a check to false or reckless alarm, each key, which is registered and numbered against the name of the holder, is so constructed that once introduced it can be withdrawn only by the ambulance driver, who delivers it back to its holder, and takes the patient to the hospital of the respective district. In New York, Boston, and Philadelphia the ambulances are kept at the hospitals only, horses for which, as is common to the system everywhere, are kept harnessed night and day. The *personnel* includes a house-surgeon or substitute. The ambulance summons is sent by telephone from the police station nearest the site of the accident to the headquarters of the police, where on a chart is seen at once the hospital district of the address where the ambulance is required, and the telephonic summons is then forwarded to the hospital of that district. A diagnosis blank is filled up by the ambulance surgeon before removing the patient, and immediately on returning to the hospital this with the time of departure, arrival, return, and other particulars, is entered in a book for that purpose. If after the necessary attention the patient desires it, and the surgeon approves of it, the patient may be transferred by the ambulance to his own home. In Cincinnati, ambulances are kept at all the hospitals, and at only some of the police stations. In Washington, at all the hospitals and at every police station. In each of these cities, in promptness the ambulances rival the fire engines, and from the general interest awakened by the ambulance carriages, not only amongst the police, but the people generally, there is so much familiarity with the provisions and rules of the system, that such intelligent co-operation as may be in any case expedient is rarely wanting. In the neighbouring city of Paris the project which has received the municipal approval consists in having horse ambulance stations corresponding in their distribution to the former Secours de Blessé, stations forming together a distinct municipal organisation.

The ambulance system and ambulance carriage of the London Hospital.—By reference to Fig. 1, it may be seen that nearly equidistant, and in different directions from the London Hospital, there are eight police stations. If not in consequence of my suggestion, certainly in accordance with it, each of these stations, formerly in telegraphic connexion with Scotland-yard, is now by the cordial co-operation of Sir Edmund Henderson being connected also with each other, so as to form a distant but complete telegraphic ring round the hospital. Tapping this circle at one point—viz., the nearest police station, by a telephonic wire, thence to the hospital, it will be seen how, as represented on the diagram, the entire area round about the hospital is brought into direct communication with it. The cost of this wire for the first three months, I am given to understand, will be nothing; afterwards, by special concession, below the usual rates. As one of the privileges of subscribers and at no extra cost, this telephone may be connected at any moment with that of every other subscriber. Thus every policeman within the London Hospital area, having the address of the said subscribers within his beat, from the nearest private instrument of the already many hundred subscribers, the ambulance summons may be sent direct to the hospital. This is the outline of the plan I have submitted to the London Hospital Committee, and which I trust will soon be in complete working order. The ambulance carriage, in the absence of which neither this nor any other scheme could take practical

FIG. 1.



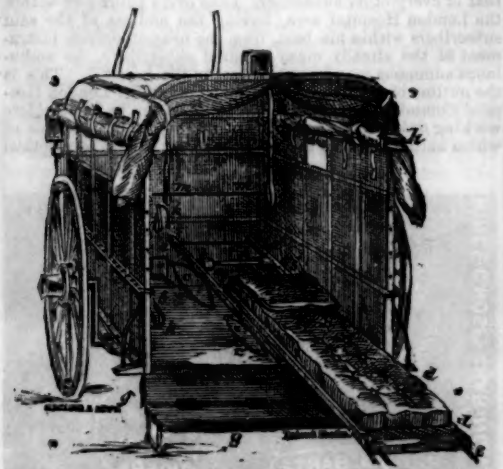
Small circles: Police stations. Single lines: Telegraphic wires. Double lines: Telephone wire. From Guy's Hospital south there is no other general hospital whatever. From the London Hospital north there is no other hospital in any direction, except at Dalston.

form, I thought at first to import from New York, that being the nearest place where any accident horse ambulance could be procured. You will not regret to know, however, that as the ambulance of the London Hospital which I shall show you to-night was subsequently planned by me here, and built for me here with express adaptation for the London service, it is both in design and in make a London ambulance. In every leading particular, too, but one it is different from any ambulance carriage previously constructed. The exception to which I allude is the interior counterpoise springs, used first in my military ambulance so well described in Professor Longmore's book, and which, besides taking the highest international prize at the first Paris exposition, was largely used both in the American and Franco-German wars.

The ambulance which I have now to describe, and which was presented to the London Hospital by its Vice-Chairman, Mr. Crossman (Fig. 2), is, I believe, the only accident ambulance carriage in civil life in Europe; certainly, I think, the only one belonging to a general hospital. It is briefly a neat little apartment, 6 ft. 6½ in. by 4 ft. 1 in., in which on a sliding litter with a perfect surgical bed

the worst fracture patient, his attendant seated beside him, may be transferred from the most distant country seat in Scotland to the farthest Italian villa in safety, comfort, and seclusion. This seclusion may be maintained, without a moment's disturbance, until the patient from the same litter is shifted to the bed awaiting him in Italy. The size of this vehicle is arranged so that, whether shifted from road, boat, or rail, it requires no change, and, being all the

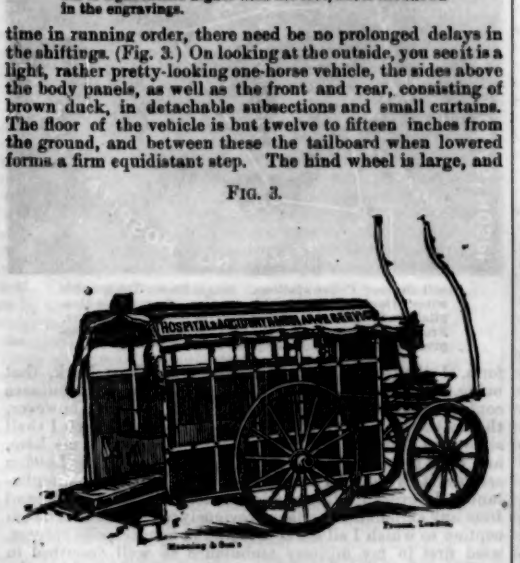
FIG. 2



a, *A*, Tramway; *b*, *B*, Rubber rollers; *c*, *C*, Counterpoise springs; *d*, *D*, Litter; *e*, *E*, Sliding handles; *f*, *F*, Attendant's seat; *g*, *G*, Tail-board; *h*, *H*, Folding stretcher; *k*, *K*, Suspension-loops; *m*, *M*, Supporting-bar for police stretcher; *n*, *N*, Canvas handles of carrying-sheet; *p*, *P*, Patient's sid-strap; *s*, *S*, Lateral rubber buffers. The position of the head of both litter and stretcher is six or eight inches higher than the foot, but is not shown in the engravings.

time in running order, there need be no prolonged delays in the shiftings. (Fig. 3.) On looking at the outside, you see it is a light, rather pretty-looking one-horse vehicle, the sides above the body panels, as well as the front and rear, consisting of brown duck, in detachable subsections and small curtains. The floor of the vehicle is but twelve to fifteen inches from the ground, and between these the tailboard when lowered forms a firm equidistant step. The hind wheel is large, and

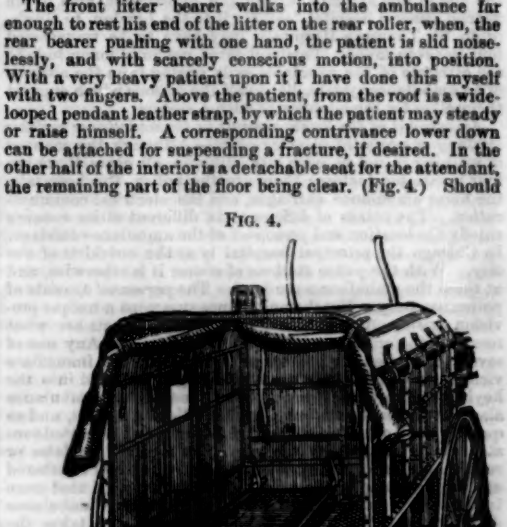
FIG. 3.



is in the centre of the body, the floor of which is below the axis of motion, while the spring from which the body is suspended is a very long semi-ellipse. The four wheels have india-rubber tires. By a special contrivance of the running gear the fore wheels and the entire carriage turns exactly on its axis. Beneath the driver's seat is a box for medical and surgical appliances. Two red lamps beside the driver and one in the rear are used to prevent collision. The shafts are adapted to any cab horse and harness. A centre-pole may be applied for two horses; in any case, however, it can, if necessary, be drawn by one man. The associate editor of THE LANCET started and drew it in the office with his little finger. This has been repeated by myself even in an ordinary paved street. Looking at the interior, which is entered with the same ease as a room on the ground-floor of any ordinary house would be, the right half of the floor is seen to be occupied by a light tramway with india-rubber roller ties. The tramway rests on four light elliptical springs, the pair at the head being about six inches higher than those at the foot. Between the side of the tramway and the inside of the body of the vehicle are india-rubber buffers. Resting upon the india-rubber rollers mentioned is a light cane-bottomed litter, with sliding handles. Upon the litter a waterproof thin hair mattress and pillow are used, or not, as preferred.

The front litter bearer walks into the ambulance far enough to rest his end of the litter on the rear roller, when, the rear bearer pushing with one hand, the patient is slid noiselessly, and with scarcely conscious motion, into position. With a very heavy patient upon it I have done this myself with two fingers. Above the patient, from the roof is a wide-looped pendant leather strap, by which the patient may steady or raise himself. A corresponding contrivance lower down can be attached for suspending a fracture, if desired. In the other half of the interior is a detachable seat for the attendant, the remaining part of the floor being clear. (Fig. 4.) Should

FIG. 4.



two patients need transportation, a folding stretcher is detached from an angle of the roof, the handles of which are received by leather loops, and by which the second patient is suspended parallel with the first. Should it happen that on the arrival of the ambulance the patient is already on an ordinary police stretcher, or should four patients need transportation, a horizontal iron bar receives the front handles of the stretcher, and the iron-shod top of the tailboard the rear handles. Thus there are avoidance of shifting in the one case, and easy transportation for four patients in the other case, without the slightest interference the one with the other; the attendant having in this case simply to ride outside, where there is excellent accommodation beside the driver. Although when perfectly closed the light and air are not insufficient, by means of the eight little upper curtains these can be increased at pleasure, without exposure of the patient to the public gaze. Where the latter is no consideration, the eight sections forming the lower part of the sides above the body can also be removed, forming simply an open but roofed carriage.

The principal objective points obtained in this ambulance are—

(a) *Ease of entrance and exit.*—In every other ambulance, civil or military, as also in every fever carriage, the height of the floor necessitates several attendants, and such hoisting and lowering, pushing and hauling, as are particularly alarming and objectionable. The lowering of the floor, which so completely obviates this, was, I believe, never before

attempted or suggested. This, with the additional arrangement of the rubber-rollers in the tramway, may be fairly said, I think, to make the ease of entrance and exit complete.

(b) *Ease of motion in transportation.*—The central position of the axle, the largeness of the rear wheel, the lowness of the floor below the axis of motion, the length of the semi-elliptical main-spring, the suspension of the body from this, together with the india-rubber tires never before applied to a horse ambulance carriage, have combined to secure the highest degree of steadiness attainable for the body of the vehicle. This minimum motion of the body of the vehicle, instead of being communicated to the patient, is intercepted, its chief force being expended upon the interior counterpoise springs, which, vertically and laterally, poise the tramway. Mr. Adams, the senior surgeon of the London Hospital, lying upon this litter at varying speeds, said it seemed almost easier in motion than at rest, and in running the ambulance over successive pieces of loose wood, the crossing of them he detected rather by the alteration in the planes of the interior than by any conscious jar they occasioned. A gentleman who on a recent trial trip went to take notes of the action of this litter soon after the start forgot his purpose in a gentle slumber, induced, strange to say, by the roughness of the road—in other words, by the oscillations in traversing a street under repair. By the principle of suspension, as illustrated in the attachment of the canvas stretcher, the conditions, though for a fracture case not so desirable as those of the litter, are for a medical case scarcely less agreeable, the elasticity of the stretcher poles, as thus used, preventing the propagation of jar or shock to the patient. One feature in this stretcher is as convenient as it is novel. Across the under side of the canvas, from which both poles and stretcher bars may be easily and completely detached, are stitched four broad bands of the same material, terminating in firm loops slightly projecting beyond the lateral margin. On this carrying sheet, to which the stretcher may be thus easily reduced, the patient may be carried easily and comfortably where the stretcher complete would not go. The ease with which it can be insinuated beneath, or withdrawn from under, a patient, or when there be left there, will be a great convenience and avert much suffering.

(c) *Ventilation and light, with or without exposure of the patient to public view, can be regulated to the utmost.*

(d) *Immunity from contagion.*—The cane-bottomed litter is, without the mattress, sufficiently comfortable. The interior is but wood and iron, and accessible to the quickest and most thorough cleansing.

(e) *Adaptability to other uses.*—The tramway is readily detached from the floor. The interior, then quite clear, is adaptable to any purpose of pleasure or utility for which a vehicle might be desired in connexion with an infirmary, hospital, or other institution.

My thanks are due to Mr. J. U. Bart, of the Swinton-street carriage works, for his patience and faithfulness in carrying out my designs in the construction of this vehicle.

SOME OF THE LEADING QUESTIONS WHICH WILL ARISE IN THE CONSIDERATION OF AN AMBULANCE SYSTEM FOR LONDON.

1st. *The kind of ambulance carriage to be employed.*—Should the carriage I have presented to your notice prompt somebody to the introduction of a better my satisfaction would be so much the greater. To stimulate invention in this direction the suggestion of prizes recently put forward by Sir Edmund Lechmere and Major Duncan would doubtless be of service.

2nd. *The location and personnel of the ambulances.*—Shall the ambulances be stationed at the general hospitals, the police stations, fire stations, or at special ambulance stations? If at any one of these only, which? If at more than one, at which other or others? For the police stations, may be shown their superior number and distribution, the always available force at each; against them, the natural and rightful repugnance of the better classes, for whom the ambulances are equally intended, as well as, indeed, that of all other classes, to personal police attendance; while the absence of all good first care on the spot, and the uncertainties about admission, detention, or rejection on reaching hospital would be then as great as now. For the location of the ambulances at the hospitals, it may be said, the question is one of medical aid on the one hand, of public need on the other, affecting, in a personal way no other question connected with the hospital could, those who, supporting the hospitals, are accustomed to look to them as the natural source of the best and rightful help in a possible street accident to themselves; and that the ambulance of the hospital would be but a natural and legitimate extension of the help it now gives, to the time it is first and perhaps most critically needed; and thus the hospital would complete the function it now but partially fulfils. The facility for a medical attendant would be greater; there would be a guarantee against hospital-yard detention, of possible rejection, and delayed treatment; the help afforded would be dissociated from the now humiliating and criminal suspicions. For the hospitals there would be evoked higher esteem, more personal sympathy, concern, and help from the subscribing classes. As regards the *personnel:* the rank of the medical attendant would be of little consequence, his competency of much; the work would be no harder than that to be expected in country or army practice. The hospital would have by this service a new prize, and another useful certificate to offer the deserving candidate for a term as short as may be found expedient. In America, as a rule, the ambulance system is strictly a hospital-ambulance system—the medical attendant is usually what corresponds to a senior or junior dresser. No part of the scheme has so much secured the success and popularity of the system as the quick medical help it guarantees to the entire public.

3rd. *Special ambulance stations.*—These might be at the same time small emergency hospitals, and in the outer and almost destitute seven-mile belt of London might have a relation to the general hospitals, corresponding to that between the field and the base military hospitals, the patients being drafted from the former into the latter as may be required.

4th. *The form and the source of ambulance summons.*—In America the intercommunication between the respective police stations continues to be telegraphic. Between the police and the hospitals it is telephonic, so that the call can be understood by anybody in attendance at either end of the wire. In regular course the ambulance summons comes to the respective hospital from the head-quarters of the police; it may come, however, from any public or private telephone whatever. As an instance of the quickness of the service made possible by the telephone, only this morning Dr. Beckwith of Washington told me that on the occasion of an accident during the inauguration of President Garfield he (Dr. Beckwith) himself telephoned from a neighbouring store; and notwithstanding the unprecedented multitude in the streets, from the time of the summons to the arrival of the ambulance was by his watch exactly two minutes. Before long all the police stations in London will be in telegraphic communication with each other. One of these stations is sure not to be very distant from a general hospital. One short telephonic wire, therefore, will put every police station in communication with that hospital. Moreover, every public and private telephone in London, by the ordinary method of connecting subscribers with each other, will thus be in communication also with every hospital telephone. A street accident occurring anywhere, a policeman, guided by his list, may, from the shop or bank, for example, next door perhaps, telephone the address to the respective ambulance where it is wanted. A purposely false summons would, of course, be a criminal act.

5th. *The relation of the police department to the ambulance system.*—This in any case must, of course, be integral. Whatever the system, it is necessary that every policeman should be intelligent as to the details of it, while the entire force must be in harmony with every other part of the organisation. On this point I am happy to state that by Sir Edmund Henderson, the chief of the metropolitan police, I was long since authorised to say to whomsoever it might concern that his practical co-operation may be fully relied upon.

6th. *The cost, and how it is to be met.*—In America, as a rule, the hospitals have provided the necessary change in their premises, and procured and maintained the ambulance horses, &c., complete, in working order, making themselves simply available; the municipalities have done the rest. The cost of the ambulance I show you will be, I think, from sixty guineas upwards—little more than half the cost in New York of the ambulance there used. Telephonic communication costs, at regular rates, at present £45 a year; but for this service special concessions are promised. On the advent of the expected Government control of the telephonic service, the subscription is expected to be lower, and the distribution of it more general. An ambulance carriage

is just the kind of thing many donors would like to give. An ambulance station is just the kind of thing many would like to endow, its benefit being to them daily visible. From my observation, where the system is oldest I believe that, if put on a voluntary basis, it would by its popularity probably elicit enough to support itself, and do more than all things else combined to augment the hospital fund besides.

7th. *The expediency of attempted complete organisation at the outset, or of allowing gradual development?*—This question, confronted in its entirety, it must be admitted, promises no easy achievement. The hospital modifications, the police and telephonic arrangements, the harmonising of these with the heterogeneous and parochial administrations, like the obstacles which, but incomparably greater, were surmounted by the railway telegraphic and fire brigade systems, may not and should not be accomplished in a moment. The work as initiated by the London Hospital is, considering its importance, strikingly simple and easy. The neighbouring hospitals assuming a similar work for their respective districts, a fair proportion of the metropolitan area would, as shown in the diagram, be provided for, and the ultimate system or systems without delay might be determined by gradual development.

8th. *The authority by which the ultimate hospital and accident ambulance system for London shall be controlled.*—This must remain a question until, sooner or later, the time has fully come for the answer. The necessary integral position of the police department in such system is suggestive. Of this I should venture to say there can be little doubt that, however successfully different districts may be separately worked, in order to the highest success the entire organisation will ultimately be under one authority, so complete and absolute as to ensure corresponding responsibility and accountability in every subordinate whatsoever.

SOME OF THE RESULTS AND ADVANTAGES WHICH, FROM THE EXPERIENCE IN OTHER CITIES, MAY BE REASONABLY ANTICIPATED FROM A METROPOLITAN HOSPITAL AND ACCIDENT AMBULANCE SYSTEM IN LONDON.

1. Quickest possible medical aid, and best form of transportation to the home, or to hospital, in street accidents and other emergencies.

2. A sense of security which by the knowledge of this provision will be imparted to every rank and class throughout the entire community.

3. A more personal interest, a deeper sympathy, and a closer relation will be induced between the subscribing class and such hospitals as by their ambulance service shall manifestly include this class within their most important provisions.

4. The sense of public obligation thus induced, and of which the ambulance carriages as they pass will be a daily reminder, should sensibly augment the hospital revenues, both by multiplying contributions and by promoting endowments.

5. As a substitute for the much-discussed redistribution of hospitals it offers a simple form of hospital extension; the ambulance bringing the hospital to the spot, however distant, where the patient is.

From personal observation, in nearly every city where an ambulance system exists, I should say that in every one of them the ambulance department for the saving of life has come now to be deemed almost as important as the more expensive fire department for the saving of property; that now to abolish the one would be as difficult as to abolish the other.

One of the earlier results of the "Hospital and Accident Ambulance Service of London" which I venture to predict, is a general expression of surprise it was not adopted before.

LIVERPOOL ROYAL INFIRMARY.—The annual meeting of the trustees and subscribers to this institution was held in the Law Association Rooms, Liverpool, on the 30th ult. The report stated the finances to be very unsatisfactory, the subscriptions having fallen off notwithstanding the increased expenditure. It was proposed that the infirmary should be entirely reconstructed and largely rebuilt on its present site, the existing accommodation being most inadequate. The report was adopted. Various speakers made an urgent appeal for increased public support.

A MALTESE cross, fifteen feet high, has just been erected in Allenville in memory of the late Dr. James Simpson, of Aberdeen.

OPHTHALMIC MEGRIM:

AN AFFECTION OF THE VASO-MOTOR NERVES OF THE RETINA AND RETINAL CENTRE WHICH MAY END IN A THROMBOSIS.[1]

BY DR. XAVIER GALEZOWSKI.

WHEN I read a paper on the subject of ophthalmic megrim before the Congress of Genoa in 1877 I had already seen no fewer than seventy-six cases of this curious disease, and had included it amongst the affections of the fifth nerve, and of the vaso-motor nerves of the retinal centre. In my opinion ophthalmic megrim is an affection of that part of the fifth pair which supplies vaso-motor nerves either to the visual centres, such as the corpora quadrigemina, the corpora geniculata of the optic thalami and the chiasma, or to the parts lying more peripherally, such as the optic nerves and the retina. But all nervous diseases, as Professor Charcot justly observes, may be said to be associated with more or less material lesion, and an apparently purely nervous affection may assume at any moment the characters of an organic disease. Ophthalmic megrim affords an additional evidence of the truth of this statement, for amongst the numerous cases that have occurred in my practice I have already met with two cases of thrombosis of the retinal vessels—one case of thrombosis, with rupture of the vessels; and one case of partial atrophy of one optic disc—which I am disposed to ascribe to thrombosis of some cerebral vessel.

The following are the observations which seem to possess special interest:—

CASE 1. *Ophthalmic megrim; thrombosis of the central artery.*—General S——, aged sixty-seven, consulted me on February 1st, 1881, complaining of sudden loss of vision in the right eye, which had occurred five days previously. He stated that for more than twenty years he had suffered from periodical visual trouble in the right eye, in the form of hemiopia or of scotoma, with zigzag lightning, lasting for a few minutes. This was succeeded by violent pain on one side of the head, and vertigo. These phenomena all disappeared in the course of two or three hours. They recurred every month or every week, and even during several successive days. The last crisis was followed by permanent loss of vision. On ophthalmoscopic examination a thrombosis of the arteria centralis retinæ of the right eye was diagnosed, with a few spots of hæmorrhage. The affected eye was entirely blind, except that there was slight quantitative perception of light in the outer part of the field. The disc was white, slightly infiltrated in its outer half; the arteries were filiform, and some light whitish patches of infiltration were visible along the temporo-frontal branch. On compressing the globe, pulsation could be easily induced in the central part of the artery. The examination of the heart made by the physician in attendance on the family and by myself showed that the valves were free from disease.

CASE 2. *Thrombosis of the central artery of the retina consequent upon a succession of attacks of ophthalmic megrim.*—Miss X——, aged fifteen, living with her parents in the south of France, was sent to me by Professor Jaumes, of Montpelier. She had been subject from the age of seven or eight to ophthalmic megrim. The attacks supervened frequently, and without any apparent cause. They were characterised by headache, preceded or followed by disturbance of vision in one eye, and sometimes in both eyes. This disturbance consisted of dimness and lightnings in the form of a rain of fire or of zigzag flashes. Occasionally her vision was entirely lost for a period of ten or fifteen minutes, and was then perfectly restored. These phenomena recurred at different intervals, sometimes every two or three months, and sometimes every week for several successive weeks. During the last year the visual troubles had been so frequent that no day passed without her feeling them more or less distinctly, the left eye being almost always the one affected. The remarkable feature of the case was that as soon as the attacks had passed no visual trouble remained, and the patient could work, read, or write without the least difficulty. On Dec. 25th, 1880, she had an attack of megrim accompanied by dimness and impairment of sight, and a few

[1] A paper read before the Biological Society, at a meeting held on Nov. 29th, 1881.

minutes afterwards the vision of the left eye was found to be entirely lost. The headache which followed the fit lasted twenty-four hours, and partial recovery of vision took place in the course of two or three days. The various plans of treatment to which she had been subjected were without result, and she was in this condition when her parents brought her to me (Feb. 8th, 1881). The note then taken was to the effect that no change is observable on external examination of the eye, except that the movements of the iris are sluggish. Miss X—— can see to read No. 2 test type, though she experiences some pain in doing so; S=$\frac{1}{3}$. The inferior half of the field of vision is lost. Examination of the fundus by means of the ophthalmoscope shows that the optic disc is white, with a light serous effusion around it. A whitish infiltration affects a great part of the region of the macula. The appearance of the retina and of the disc exactly resembles that presented in embolism of the central artery of the retina, and in point of fact the fronto-temporal and fronto-nasal arteries are obliterated and surrounded by a peri-vascular sclerosis for a space equal to about twice the diameter of the disc. The same condition, though in a less marked degree, is presented by the inferior arteries. The calibre of these arteries is materially diminished, and on compressing the globe with the finger no pulsation can be observed. The veins are relatively of larger size than the arteries, but as compared with those of a healthy eye are decidedly lessened in calibre. Our regretted *confrère* Dr. Raynaud, who had been consulted on the young patient's health, met me in consultation on her. From the cases I instanced, and after my description to him of the processes which appeared to demonstrate embolism of the vessels, we made a very careful examination of the heart, but nothing was found indicating in the slightest degree the presence of hypertrophy of the heart, or, indeed, of any other cardiac affection. At most an *anæmic* murmur was audible in the carotids. Dr. Raynaud therefore stated in his written account of the case that the retinal affection was the result of an autochthonous or spontaneous thrombosis. What, then, we may ask, was the cause of this thrombosis? The girl had always enjoyed good health, she looked strong and had apparently a good constitution. She complained only of ophthalmic megrim from which she had suffered on three occasions in the affected eye, and once in the other eye during the five weeks of her stay in Paris. We may add further that her father is very liable to megrim, and in his childhood suffered twice from the affection. He is of a gouty constitution, and it is not therefore surprising that the child of a father subject to gout and megrim should be predisposed to alterations in the vessels which, under the influence of the spasms of megrim, are at a certain moment exhausted. I think there may be a direct and immediate correlation of these ocular nervous troubles with the thrombosis of the retinal vessels; and if the spasms of the vessels are the initial cause of the megrim, we may comprehend in some measure that prolonged contraction of the arteries, the internal or lining membrane of which is somewhat rigid, may at length cause obliteration of their calibre. Professor Charcot has advanced a very sound opinion, which Feré has supported in his last work, that the symptoms in any case of megrim may assume definitive and permanent characters. In fact, I have had an opportunity of observing with this eminent master a case of central scotoma which had become definitive. M. Charcot has seen a case of aphasia associated with megrim which became permanent. Perhaps in all these cases, which, however, are of rare occurrence, the same pathological processes are induced by the spasm. Changes similar to those observed in the retina probably also occur in the brain, if we may draw any conclusion from the following case, which fell under my notice. A young woman affected for many years with periodical troubles of vision associated with megrim suddenly lost the sight of the right eye, and, notwithstanding some improvement, the vision remained permanently impaired, and after the lapse of some time atrophy of the disc occurred in this eye similar to that which is found in cerebral and spinal affections. The following are the details of the case:—

CASE 3. *Ophthalmic megrim, with consecutive atrophy of the left disc.*—Madame V——, aged twenty-nine, living at Montmartre, had suffered from occasional attacks in her youth, but had of late years been entirely free from them. Four years ago, after her last confinement, she began to experience violent periodical headaches, which she attributed to fits of megrim. At the same time she began to be troubled with transient dimness of vision. Both eyes filled with tears, then a mistiness was felt, lasting for half an hour, which was again followed by headache lasting for one or two hours, and accompanied by nausea and vomiting. As long as the mist lasted the patient constantly saw zigzags, which were very vivid and of various colours. The mist always affected both eyes. She never suffered from hemiopia, but vision was always obstructed by a black scotoma obscuring any object that was looked at near the point of fixation. It is interesting to remark that for the past four years she has never ceased to see zigzags and luminous spangles, which even in the intervals of the attacks are constantly passing before the right eye. Sometimes the photopsia presents itself as a round and notched plate of the size of, or less than, a threepenny piece that moves before the eye. During the past year the fits of megrim have been accompanied with pain occurring simultaneously in the right leg and arm, and she occasionally feels darting pains like those of rheumatism in her left arm. The visual acuteness of the right eye is normal, but that of the left is reduced to bare perception of the letters of No. 5 test type. The field of vision is diminished concentrically in the left eye for colours and for objects. The disc is white, and the vessels of the left eye are contracted. It is obvious that we have here a case of atrophy similar to that observed in cerebro-spinal disease, and the lesion consequently ought to have its seat in the left visual centre.

In a still more recent case I have substantiated the existence of neuro-retinitis, with a vascular thrombosis, affecting the eye of a patient who had suffered for many years from ophthalmic megrim. The particulars I subjoin.

CASE 4. *Ophthalmic megrim, with neuro-retinitis and capillary thrombosis.*—Madame J——, aged fifty-two. Has always enjoyed good health, and is of sound constitution. Four years ago she had an attack, for the first time, of ophthalmic megrim which seriously alarmed her, for she found she was unable to see the left side of objects, and of the faces of persons at whom she looked. She at the same time felt such vertigo that she was obliged to seek shelter in a warehouse. This disturbance of vision was accompanied by luminous phenomena of zigzags, characteristic of this form of megrim. Headache was then experienced in the left side of the head, which lasted for several days; since this date headache and vertigo have frequently recurred, but the ocular troubles have only been felt two or three times a year, and have then always been accompanied with hemiopia. Three years ago, during an attack of megrim, amnesia supervened. She was unable to find the proper words to express her ideas, or she confounded one word with another. This attack lasted only five or eight minutes, but since that date the same symptom has recurred three times, the last one in April, 1881, but no symptoms were felt in the arms or legs. In 1880 she consulted M. Wecker, who discovered a retinal hæmorrhage, from the effects of which she soon recovered. Three days ago she had another attack of ophthalmic megrim with a left hemiopic headache and vertigo, and the crisis having passed the vision has remained dim. On examination Madame J—— is found to be hypermetropic to the extent of 4 D. The acuteness of vision of the right eye is normal, but that of the left is reduced to $\frac{1}{3}$, and she experiences difficulty in reading with 4 D. The field of vision is perfect. On November 23rd an ophthalmoscopic examination showed that neuro-retinitis existed on the left side, with thrombosis of some capillaries, together with a few spots of hæmorrhage. The other eye was healthy. The catamenia had ceased for fifteen months, and there is hence every reason for believing that the disease is really a thrombosis caused by the frequent contraction of the retinal vessels, and that these vessels under the influence of congestion, induced by the menopause, have undergone obliteration.

In conclusion, then, we may deduce from the four cases I have recorded this very important point—that ophthalmic megrim, which has hitherto been considered as a mere nervous symptom, may occasionally lead to organic changes in the retina or retinal vessels.

ROYAL COLLEGE OF SURGEONS.—It is stated that the rather unusual number of five essays have been sent in for the Jacksonian Prize on the Pathology and Surgical Treatment of Diseases of the Hip-joint. The following is the subject announced for the present year—viz., "Wounds and other Injuries of Nerves, their Symptoms, Pathology, and Treatment."

TYPHOID FEVER ATTENDED WITH EXTENSIVE ULCERATION AND PERFORATION OF THE LARGE INTESTINE (RECTUM).

BY JOHN COCKLE, M.D., F.R.C.P.,
SENIOR PHYSICIAN TO THE ROYAL FREE HOSPITAL.
(*Notes by* R. BROOKES, M.R.C.S., *House-Physician.*)

SARAH L——, aged twenty-eight, was admitted into the Boys' ward on Oct. 17th, 1881, suffering from typhoid fever. The patient was a general servant at a public-house; never had any previous illness, but was always strong and healthy. Two weeks previously her mistress noticed that "she was not quite right in her head," forgetting everything told her, and labouring under strange delusions. A week previous she had an attack of diarrhœa (five or six watery stools a day). The attack commenced with rigors and vomiting. The patient, a healthy-looking woman, was excited in manner, and complained of headache and a general feeling of lassitude. Tongue furred and dry; temperature 101·6° F., going up in the evening to 103°. No spots, no enlargement of the liver or spleen; slight tenderness on pressure over the whole of the abdomen below the umbilicus. Motions pale-yellow, watery, and very offensive. Fluid diet.

Oct. 18th.—Passed a very restless night, talking in her sleep; complained of sore-throat; tongue very dry, beginning to crack; breath very fetid. Temperature: 100·2° in morning, 103·6° in the evening. From this date to the 21st there was very little change in her general condition. The temperature on the evening of the 21st reached 105°, gaining that altitude by the ordinary gradations. Bowels open once a day; very little sleep; more delirium at night.—23rd: Temperature 104·2°, not having been below that for three days; the highest it reached was 105·6°. Tongue very thickly coated, dry, and fissured; delirium very violent, causing great difficulty in keeping her in bed. Motions and urine passed unconsciously. From this date to the 29th there was very little change, except increasing exhaustion, the temperature falling as it rose, step by step, to 101°. Pulse weak, marked dicrotism, respiration hurried, mucous râles at both bases.—31st: Temperature fell to 99°; exhaustion extreme, pulse barely perceptible at the wrist; marked floccitation; low muttering delirium. Ordered sulphuric ether, fifteen minims, and castor tincture, twenty minims, every hour; an ounce and a half of champagne every hour, and milk and Brand's extract every quarter of an hour.

November 2nd: Temperature suddenly went up to 105°, but fell again two hours after to 100°. Pulse stronger, takes her nourishment well. Slight twitchings of hands; conscious at intervals.—3rd: Temperature 103°; feeling much stronger; pulse fallen, marked meteorism; ordered turpentine stupes; slight nausea, no sickness.—5th: Temperature kept between 102·6° and 101°; slept two or three hours, woke very much refreshed, feeling stronger.—7th: Passed a few small clots in the motions for the first and only time; very slight pain in the lower part of the abdomen; meteorism disappeared. Temperature fell steadily to 99°.—9th: Much improved in appearance. Sleeps well, takes nourishment (champagne, milk, and Brand's extract) very well; conscious, and talks rationally; slight sickness after medicine, so it was stopped.—10th: Temperature shot up to 102°. Bowels open three times a day; motions very loose and offensive.—12th: Diarrhœa more severe, six times in twelve hours; ordered enema of opium, B.P. Very restless all night.—13th: Diarrhœa relieved by enema. In the evening she complained of very severe pain in the abdomen, chiefly at the lower part, which came on immediately after a severe fit of coughing. She was completely collapsed, and, in spite of every effort to rouse her, she sank into a comatose state and died at 1.30 A.M. on Nov. 14th.

Autopsy, thirty-six hours after death.—Marked emaciation; rigor mortis well marked. Abdomen distended, chiefly post mortem. On opening the abdomen a small quantity of gas escaped. The intestines, as they lay, appeared normal. The peritoneum of the pelvis was covered with pus, and the intestines were slightly adherent to it; no free pus found at the bottom of the cavity. There were two small perforations on the anterior surface of the rectum about nine inches from the anus. On opening the intestines, and examining them from above downwards, the small intestine was seen to be healthy, until about three feet from the ileo-cæcal valve, where there was a healed ulcer (typhoid?) with pigmented edges, not swollen, exposing the muscular coat. Several ulcerations a little lower down occupied the position of Peyer's patches; three inches above the valve was one much larger, three-quarters of an inch long. The whole colon was slate-coloured from pigmentation; there were a great many ulcers, small in the ascending, but becoming from two to three inches in length in the descending colon, chiefly transverse, affecting the edges of the sacculi. The muscular coat was so brittle that it was unavoidably torn in several places whilst removing the intestines. In the sigmoid flexure the ulcers were smaller but more numerous. The ulcer that had perforated was one inch long by half an inch broad looking at it from the mucous surface; the openings in the peritoneal surface were about one line across. The mucous membrane of the rectum for an inch and a half up was ulcerated away, except a few bands, which extended to the anus; there were some old piles. The mesenteric glands were much enlarged, some being in a state of puriform detritus. The kidneys were in an advanced state of cystic degeneration, the contents of the cysts in some few cases being clear, in the majority turbid, some dark in colour, others yellow, containing altered epithelium, the two weighed twelve ounces and a half. The liver was rather large; there were numerous minute hæmorrhages immediately beneath the capsules, chiefly on the under surfaces of the left lobe. The spleen was firm, weighing six ounces and a half. The lungs were congested (hypostatic); two or three small calcareous nodules in the apex of the left; other organs healthy.

Remarks.—The subject of the case detailed, when first seen by me, manifested signs of intense nervous excitement, almost incessant twitchings of the muscles of the face, and very extraordinary hallucinations. The nervous symptoms continued in a greater or less degree throughout the entire progress of the disease. The very extensive tract of ulceration of the large intestine and the site of perforation seemed to suggest the possibility of co-existing dysenteric disease. But opposed to such a view, it was stated that the patient was in perfect health up to the time of the attack of fever (though considering the account of renal degeneration, this statement must be received with some distrust). Again, there existed throughout none of the symptoms that ordinarily characterise dysentery, so that the typhoid disease might be regarded as chiefly affecting the large intestine. The site of the perforation merits particular notice, occurring as it did on the anterior face of the rectum at a height of nine inches. Perforation here must be singularly rare in typhoid fever, confessedly greatly more so than in dysenteric disease. But whatever view be taken, the laceration may be presumed to have occurred during a violent paroxysm of cough.

THE RÔLE OF ALBUMINOIDS IN THE ANIMAL ECONOMY.

BY BARON H. VON LIEBIG.

THE views of Frankland, attributing to the carbohydrates a greater importance as force-producers than to the albuminoids, have found favour with physiologists not only in England but also in Germany. Moreover, in opposition to Liebig, Professor Voit formerly believed that the albuminoids and not the carbohydrates were the source of fat in animals. This fat-generating theory has, I fear, not been of much gain in practical medicine, and has been pushed to its furthest limits in Professor Ziemssen's (Munich) recent work, "Pathologie et Therapie." In that work the carbohydrates are denied all direct participation in fat formation.

Liebig showed the weakness of such theories so recently as 1870 in an academical essay on "Fermentation and Muscular Force." He further reduced the partial application of the mechanical heat theory in the animal body to its proper value by a series of practical demonstrations. In every transformation of atoms force is generated, and therefore it is evident that side by side with every transformation of the atoms of the body, whether it be a process of combustion or

not, force is generated or liberated, whether such molecules be nitrogenous or not. There is, however, a very material difference, for whilst non-nitrogenous substances are of more service than nitrogenous as fuel in a steam-engine, the reverse is the case in the animal body. The albuminates (nitrogenous) are of themselves capable of producing force and heat; the carbohydrates and the fats, however, need the co-operation of the albuminoids to do so. Therefore Liebig justly says—

"Frankland's calculation of the heat-quantities produced by the oxidation of food would only be tenable if the animal body worked like a steam engine and boiler, where heat is transformed into power and motion. According to this theory, the same weight of Cheshire cheese would produce three times as much force expressed in units (metre-kilogrammes) as sugar, two and three-quarter times as much as butter, five times as much as lean beef. All this supposes that muscular force is produced by the burning of these substances in the muscle, and that the process resembles that of full combustion beneath a steam boiler. It may be desirable to explain that the process of combination of oxygen with the combustible elements of the animal body is wholly different from the ordinary process of combustion. In the living body carbonic acid is never produced by combination of carbon and oxygen. The carbonic acid formed in the body is not the result of combustion in the ordinary sense."—*Vide* "The Chemical Process of Respiration," *Ann. Clin. Pharm.*, lviii., 335.

To arrive at a clear comprehension of the difference between the process of combustion in a steam engine and that of the animal body, it is necessary to consider the formation of organic compounds in plants. These are all the products of carbonic acid—i.e., carbonic acid atoms more or less rearranged or transformed. In the animal body these are converted back to their original form—carbonic acid. During the formation of these organic compounds under the influence of sunshine the heat from the sun's rays (sun-power) is absorbed by the plants, or, as we say, remains latent. In the retransformation of these compounds in the animal body heat is liberated. The maximum of heat is set free when this retransformation precisely corresponds to the original formation of these substances. Hence is derived the enormous amount of heat that is generated in the animal body. In the conversion of sugar into carbonic acid it is not the carbon that is burnt, but the hydrogen, which is introduced at the same time. In the animal body all processes resulting from the combination of carbon and oxygen are not direct combinations, such as take place in the actual combustion-process of a fire, but they are all analogous to those which arise during the process of fermentation—i.e., indirect. They consist in the transposition of a great variety of atoms, all due to certain ferments, exhibiting processes of oxidation and desoxidation (reduction) almost simultaneously. Frankland's figures cannot therefore be relied upon as an estimation of force. Thus, for example, Frankland calculated amongst others the heat of combustion of cane-sugar, and found for one gramme 3348 units, or for 171 grammes, equal to one molecule, 572,508 units. In fermentation sugar produces alcohol and carbonic acid; 171 grammes of sugar yielding 88 grammes of alcohol, the remainder being succinic acid and glycerine. The 88 grammes of alcohol on combustion yield 617,818 units; therefore the alcohol alone gives 45,310 units more than the sugar from which it is generated, not to mention the heat lost in fermentation. In the animal body sugar is transformed into other products, as lactic acid, &c. The above example is merely intended to show that the figures arrived at by Frankland are not to be taken as equivalent to the living power of the animal body.

The amount of force developed in animals often considerably exceeds the equivalents calculated on the mechanical theory of heat production, and often falls below these, because the amount of possible work is made up not only of physical phenomena, but under healthy conditions largely also of psychological and physiological.

The instances of transformation of bodily heat into movement must be very few. The manifestations of force or movement in the body are always primary—i.e., synchronous with oxidation. There is a continuous and independent development of heat and force, whether such force be utilised in work or not. During protracted labour more nutriment is utilised, or, as we say, the change of the fluid albumen in tissue in the body is accelerated by moderate work of short duration; the quantity of material in the urine is not increased, and cannot therefore serve as a standard of work done. It is this which has erroneously led Frankland and his followers to assign to the carbohydrates and fats a far greater importance as generators of force than to the albuminoids.

These latter, however—the albumens—must be termed by every physiologist, as stated by Liebig, the real food or force-generators, because it is not by the increase of foods rich in carbon—as flour, starch, and fat,—but by the increase of albumen, that the working power is increased and maintained. The quantity of albuminoids alone determines the amount of carbohydrates and fat capable of assimilation in the body. We may live on bread, rice, potatoes, and fat; but even with large quantities of these we cannot continue to do hard work, because a large percentage of these carbohydrates is not dissolved, or acted on, for want of sufficient albuminoids, and therefore the force that might be generated remains dormant. People who partake largely of these foods digest only a part, much passing through unchanged, or, if digested, not being converted into carbonic acid, but stored up as fat in some parts of the body. Such individuals grow fat, but certainly not more capable of work; on the contrary, the fat deposited in the muscles impedes the power required for external work.

Only by increasing the albuminoids, and thereby stimulating molecular changes, can an increased amount of work be continuously undergone. Fat horses and fat people have to be previously trained on oats, meat, and exercise, before they can be trusted to do increased work.

We occasionally hear from physicians and others that Liebig's theories and laws concerning nutrition are no longer tenable in view of modern discoveries and researches; but on closer scrutiny we shall find that the theories of Voit or Frankland have in no way altered the doctrine of nutrition as laid down by Liebig, and even future researches will hardly alter anything in this system, although by their means we may be enabled to perceive more clearly the *rationale* of such processes.

The proper proportion of nitrogenous, non-nitrogenous substances, and salts necessary for food as established by Liebig, have in no way been altered. Even the fat-producing theory of Voit has made no change in the process of fattening, but merely served to obscure the formation of fat from foods that are poor in albuminoids.

Like my father, I myself have never been able to assent to Voit's hypothesis (the exclusive formation of fat in the animal body from albuminoids) even at times when some of Liebig's disciples seemed—in part really, in part apparently—to approve of Voit's theory. I have repeatedly published proofs condemnatory of such theories. The experiments on pigs, by Lawes and by Gilbert in particular, proved directly by figures that the fat generated could not have been formed from the albuminoids with which they were fed; a large number of experiments made since then confirmed the above, and, latterly, I succeeded in showing, from the older experiments of Henneberg, Stohmann, and others (made quite independently of this question) that the carbohydrates directly share in the formation of fat. It is only within the last two years that some of the scientists who fully studied this subject have returned to Liebig's view and reinstated the carbohydrates in their original position. For my own part, it was not figures alone that demonstrated clearly to me the improbability of the albuminoids being converted into fats in normal digestion.

Whoever has read in the medical press the able essay by Dr. Roberts, of Manchester, on Digestive Ferments, will at once perceive that a considerable portion of the albuminoids is absorbed, *primo loco*, to manufacture the needful ferments; of these the bile takes up a large share; the liver seems to be the organ in which a large proportion of albuminoids are split up into some richer and others poorer in sulphur. Again, Liebig showed that casein plus ten equivalents of oxygen might exactly form blood albumen and chondrin. In removing the sulphur-bearing bile acid there remain only substances like gelatin, and from such fat production is impossible. Such albuminoids must therefore *à priori* be excluded from fat formation. I believe that the phrase of so-called oxidation of blood constituents during circulation has given rise to many incorrect views. To me it seems that the function of arteries and veins is merely that the latter take up the bodies finally broken up in the gland cells and capillaries to convey them to the kidneys for excretion, in so far as that process has not been already done through the skin. Fresh oxygen is taken in by the lungs to be carried by the arteries to all the glands

and organs, there to start the final decomposition, excited by a number of special ferments; and it is in these cells that the greatest heat-generation takes place.

Should any foreign bodies or ferments be introduced into the circulation from without, or be generated within the body by disease, blood-poisoning is produced; whilst the true products of fermentation—carbonic acid, urea, and organic salts—will never cause a change in the blood. A very material change and partial decomposition have already taken place in the food by the action of the stomach and intestines. In all these processes certain nerves play a prominent part, not only in digestion, but in further decomposition and ultimate combustion.

A disease involving such nerves as govern the production of certain ferments in particular parts of the organism must of necessity produce grave symptoms in the process of nutrition generally, and a series of pathological appearances which are regarded as effects of disease of certain organs may not have their primary cause in them, but in disease of special nerves.

We believe, for instance, that diabetes is in no way directly caused by disease of the liver or by the abnormal production of hepatic ferments producing sugar from glycogen, but, *vice versâ*, the disease of the liver is a consequence of disorder of that part of the vaso-motor nervous system governing the ferments which act on sugar. The transformation of amyloids does not take place in the liver, but has already occurred in the stomach and intestines, whilst the further decomposition and combustion of the sugar in the gland cells are in great part arrested, so that the blood becomes overcharged with sugar. If liver derangement were the primary cause of diabetes, this disease could not at once ensue on stimulation (artificially or accidentally) of the nerve roots in the fourth ventricle (Claude Bernard).

Similarly we cannot explain morbus Brightii by the disease of the kidneys alone, but by a general derangement. The albuminoids are decomposed to a less degree than in the normal state, outside the digestive organs; the processes of assimilation are deranged, and the over-filling of the kidneys with blood causes inflammation. Thus the inflammation of the kidneys is a secondary phenomenon. Bright's disease is often the result of continued over-feeding on meat and alcohol; on the other hand, we see it sometimes arise after scarlet fever (an infectious disease), injuring the skin by causing it to take up noxious ferments and making its functions abnormal, and the kidneys to be overcharged with noxious and useless material.

It is plain, therefore, that for the practical physician to have a true idea of the changes undergone by albuminoids in the animal body, it is very important to know whether normally they are partially converted into fats or whether, as they certainly do in a great measure, they produce ferments and derivatives rich in carbon—such as chondrin and gelatin substances, besides repairing the waste of tissue. Professor Voit himself showed that gelatin may replace part of the albuminoids in the food. Even tauric acid, kreatin, and kreatinin are not without value for nutrition as products of gelatin; for, like the inorganic salts, they stimulate the kidneys, which are paramount in nutrition processes; their value is not to be over-estimated.

According to Voit's experiments fat requires more force and ferments to consume it than do the other nutritious ingredients. How, then, can it be that in normal nutrition albumen can be converted into fat, which itself would require more albuminoids to be digested? Fatty degeneration of muscle is considered a pathological phenomenon, but not a production of normal digestion and assimilation.

The axioms laid down by Liebig have in no respect been altered by later scientific research. Certainly we have, by numerous experiments and researches, gained a clearer insight into the amount of assimilated food and of the unassimilated excreted by the fæces, thus regulating scientifically the choice of food. These interesting researches are and have been the work of physiologists, and not of analytical chemists, and have advanced the science of nutrition. Dr. Roberts has clearly demonstrated the important part played by ferments in digestion, and I accept his conclusions entirely; but ferments act further in the decomposition of sugar, fats, blood albumen and their derivatives, until their ultimate conversion is effected. The regular formation of ferments is a necessity of health, and is governed by special nerve influence

No recent researches in the sphere of nutrition are opposed to Liebig's theories, and the physiologist Johannes Ranke justly says, "Liebig's theory is, we see, elastic enough to embrace the latest researches, without being overstrained."

CASE OF ACUTE AUDITORY VERTIGO.[1]

BY ALAN REEVE MANBY, M.R.C.S. ENG.

G. H——, aged twenty-one, agricultural labourer, slight but muscular build, dark hair and eyes and swarthy complexion; temperate habits; good family history. The patient always had good health, but suffered from occasional and transient attacks of dizziness. On September 28th, 1880, he casually consulted me for diarrhœa and vomiting, with some vertical headache, there being many cases of diarrhœa in the village. I treated him for it, but on the 30th the symptoms were much the same, with colicky pains at the epigastrium; and he complained of very severe and constant hacking cough at night, which was relieved by opium.

Patient tried to work for a few days, but on October 7th he again came, complaining of weakness and headache. I gave him quinine in two-grain doses three times a day. On the 9th, when at work, he suddenly reeled backwards and fell on his left side, but recovered rapidly and walked home. I saw him on the 11th; he then complained of intense headache, especially over the forehead and vertex, with nausea and "giddiness," with a constant inclination to fall towards the left side when standing erect. When lying on his back "the bed reeled with him," or when on either side "it kept heaving up and down," while everything he looked at appeared "to swim before his eyes." He seemed very ill. His eyes were dull and expressionless, his gait tottering, and he complained bitterly of noises in his ears and of being deaf. Watch gave left ear $\frac{0}{10}$, right $\frac{0}{10}$, but examined with a good light both membranæ tympani looked healthy; there was an entire absence of cerumen. Inflation of the tympanum improved his sensations for a few moments. Both optic discs were normal. Heart, lungs, abdomen, and urine normal. The temperature was not taken. I prescribed four grains of the extract of hyoscyamus in two pills, with four grains of mercurial pill, every night, and fifteen grains of bromide of potassium every four hours. On the 13th he seemed no better, but rather worse, except that he had not fallen down since the 11th. The skin was sweating profusely. Pulse feeble and quick, and the walk of a mile to the surgery seemed thoroughly to have exhausted him. On the 18th he was much the same, quite as ill and more stupid. Gums were sore (from the pills?) and he slept continually (bromide?); as of possible use the red iodide of mercury ointment was well rubbed in over both mastoid processes, and continued daily till free blistering was produced.

The patient now rapidly improved, and on the 23rd, after inflating his tympana (Valsalvian method), he found he could hear perfectly, but the good effect soon subsided; still, the next day, he called himself quite well and wanted to go to work. Inunction repeated. On the 27th he was well but for a lichenous rash accompanied by itching (bromide?) and slight photophobia. The pupils were very irritable, and the head still ached a little. Hearing with watch, both ears $\frac{10}{10}$, perfect.

On Dec. 4th, 1881, after more than a year, he had had no return of either deafness or dizziness.

Remarks.—Although one can argue very little from a single case, it seems to me that something may be learned by carefully following the symptoms, treatment, and the apparent results of treatment. I will therefore rehearse briefly the symptoms, &c., as they appeared in G. H——'s case. These were at first vomiting, diarrhœa, and headache, strangely like those of any gastric disturbance, as of an ordinary acute dyspepsia; and I find in a paper by Dr. Duffin (read before the Clinical Society in 1876), that these symptoms are usual, if not constant, in all cases, and he suggests that they are due to "implication of the vagus, owing to the proximity of its nucleus to that of the auditory nerves." These symptoms, so strangely misleading, remind me very much of those that occur constantly in acute inflammatory attacks

[1] Read before the Norwich Medico-Chirurgical Society.

of a glaucomatous patient, and are probably due to the same cause, reflected in the one case through the optic (ophthalmic ganglia), in the other the auditory (auricular ganglia) nerves; although Mr. Higgens (Guy's Hospital Reports, 1879) reverses the sequence, and states his opinion that the acute inflammatory attacks of glaucoma are due to the loaded state of the stomach, &c., of dyspeptic (and chronic glaucomatous) patients. Be this as it may, there seems an analogy between the two diseases which possibly may be more than apparent. The next symptoms were giddiness and a tendency to fall towards the worse or left side; this accords with Trousseau's views that "the impulsion is always towards the side of the lesion;" but, I think, little importance can be attached to that point in my case, as, although the left was the worse, both ears were very decidedly affected; and I remember hearing Professor Crum Brown explain why an opposite result should be expected by showing that the vertigo was purely sensational, and that the fall resulted from the violence of the muscular effort to save himself exerted by the patient, so throwing his body away from the side affected to the floor or wall, as the case might be. According to Dr. Ferrier, this giddiness depends on irritation in and about the labyrinth by the movements (impetus and inertia) of the endolymph against the ampullæ; and he also places the faculty of coördination and of equilibration in the semicircular canals, where, according to Dr. Bristowe, inflammatory exudation is the only pathological lesion to be found post mortem. Now, since, according to Dr. Brailey, the tension of glaucoma is due to increased secretion and diminished absorption from (a morbidly damaged) iris, ciliary body, or choroid—in fact, to inflammatory changes of the accommodative or coördinating machinery of the eye,—I think a second analogy may be scored, especially if we compare also the constant halo of lights with occasional flashes, and the diminished field of vision of a glaucomatous eye with the hissings, varied by shriller whistles and screams, and the diminished range of hearing of a vertiginous patient.

To proceed to treatment. My idea of counter-irritation was original and was applied long before I knew that Charcot had used the actual cautery over the mastoids (although I may here parenthetically remark that his faith in quinine received no support from my patient, who became distinctly worse after its administration), still I must now acknowledge that counter-irritants had been used effectively before. The red iodide of mercury had not; but, being so valuable an external application, in many inflammations with effusion of serous cavities, I think its success in this case justifies the presumption of the existence of inflammatory exudation in or about the internal ear, leading to a state of chronic pressure in the cochlea and labyrinth, which may at any time suddenly become acute, after the well known habits of a glaucoma (and with equal rapidity and disaster to the special sense—for Ménière's vertigo is followed by deafness as surely as a neglected glaucoma by blindness); at the same time, if we allow that the treatment acted by absorption and consequent diminution of intra-cochlear tension, we are irresistibly struck with its analogy to the iridectomies, sclerotomies, ice applications, and other means employed for the relief of intra-ocular pressure.

NOTE ON CELLS CONTAINING RED BLOOD-CORPUSCLES.

BY WM. OSLER, M.D., M.R.C.P. LOND.,
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DR. RIESS has recently described[1] these elements as specially abundant in the bone marrow in pernicious anæmia. I have also noted their occurrence in the lymphoid marrow in this affection; in three cases very abundant, in two in moderate numbers. An examination of the marrow in over seventy-five persons of all ages and dead of various diseases has led me to conclude—1st, that cells containing red blood-corpuscles are normal elements in red marrow; and 2nd, that it is impossible to connect their presence with any particular disease. I have found them very numerous in cases of phthisis (2), pneumonia (1), typhoid fever (2), ulcerative endocarditis (1). They were present in the marrow of a fœtus at the sixth month, and in that of the sternum of an old man of seventy-six. I do not remember ever having any difficulty in demonstrating them to students in the ordinary red marrow of the rib. Litten and Orth[2] speak of these cells as occurring in a considerable proportion of the cases which they examined, and they also could not connect their occurrence with any special set of conditions. As in the spleen, they present remarkable variations in number, in some instances being scanty and difficult to find, in others so abundant that each field of the microscope contains several examples. On the structural peculiarities and development of these cells I will not here dwell further than to say that each one may contain from one to ten or twelve red corpuscles, which may have a perfectly natural appearance, or be in every stage of transformation into brown pigment grains. I have notes of the occurrence of these cells in the following localities:—

1. In the connective-tissue cells of the embryo and newborn animal. Here, in all probability, the red corpuscles are in process of development (Schäfer).

2. In red marrow, of which they form a normal constituent, but, like the myeloplaques, occur in very variable numbers.

3. In the spleen pulp, normal element (Kölliker), they are particularly abundant when the organ is rich in pulp, as in the acute swelling of fever.

4. In lymphatic glands, when in a state of congestion and tumefaction; not a constant feature, but sometimes very numerous.

5. In brown induration of the lungs, part, at any rate, of the pigment in this condition results from the ingestion of red corpuscles (which leave the engorged vessels by diapedesis or extravasation) by the cells of the alveolar stroma, in which they gradually undergo transformation into brownish-red grains.

6. In the neighbourhood of extravasated blood the connective-tissue cells, fixed and amœboid, are often found to contain red blood-corpuscles, which can be traced in all stages of degeneration into pigment granules.

Artificially, I have seen these cells produced by feeding lively white blood-corpuscles of the newt or frog with human red blood-corpuscles; I have a sketch of a colourless blood-cell of the newt distended with four red corpuscles which it had eaten.

[1] Centralblatt f. d. Med. Wissenschaften, No. 48, 1881. THE LANCET, December 17th, 1881.

[2] Berliner Klin. Wochenschrift, 1877.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. IV. Proœmium.

ST. THOMAS'S HOSPITAL.

CASES OF TUMOUR OF THE BREAST TREATED BY OPERATION.

(Under the care of Mr. SYDNEY JONES.)

THE following is a brief record of the breast tumours that have been removed during the past year at St. Thomas's Hospital by Mr. Sydney Jones. The notes of cases have been furnished by Mr. Battle, surgical registrar. All cases were operated on and treated antiseptically. Alternate silk and catgut sutures and drainage tubes were used.

CASE I. *Scirrhus of breast.*—E. P——, aged forty-three, single, admitted on Jan. 6th, 1881. Family history good. Catamenia ceased twelve months since. She received a blow on the breast three years ago. Much family trouble two years since. Eight months back she noticed a lump the size of the little finger in the right breast; this increased gradually, and for two months she has had shooting pains, increased by pressure or handling. Hard, somewhat rounded tumour in the upper part of the breast; outline below indistinct, but clearly defined above; surface rather irregular. Tumour movable, but pressing part of the mammary gland.

Skin normal, non-adherent. Nipple on each side flat. No retraction; no apparent enlargement of the gland in the axilla.—Jan. 8th: Amputation of breast was performed under ether, with antiseptic precautions. — 14th: Wound dressed; almost healed. The patient left well on Feb. 2nd. Highest temperature 99·2°.

CASE 2. *Scirrhus of breast.*—E. G——, aged forty-nine, married, no children, charwoman, from Devizes, admitted on Jan. 3rd, 1881. Four months ago she noticed a hard lump the size of a walnut in the left breast near the nipple. For two months she had had shooting pains, which increased after handling. The left nipple was slightly retracted, the breast hard, but the skin nowhere adherent or discoloured. Mammary gland irregular on the surface, very hard, especially below the nipple, where, it was stated, the tumour had commenced. No tenderness. One enlarged and slightly tender gland in the axilla. No loss of flesh. Catamenia regular.—Jan. 8th: Removal of breast and gland by antiseptics, ether, scirrhus, cupping on section, with numerous globular epithelial masses easily shelling out on pressure. The temperature after operation never went beyond 99·4°. The patient left hospital on Feb. 1st, 1881.

CASE 3. *Scirrhus of left breast.*—M. D——, aged fifty-two, married, was admitted on February 16th, 1881. No family history of malignant disease. No previous history of disease or injury to breast. Eight or nine months ago a swelling about the size of a nut appeared in left mamma. Two months ago there were more rapid growth and more pain, which was usually in paroxysms, especially at night. Does not suffer in general health. The left breast has a tumour movable with gland tissue, and the size of a walnut. Growth hard, nodular, very tender. No affection of skin or of nipple; no discharge from nipple. Three slightly enlarged glands in axilla.—February 19th: Operation under antiseptics; ether; removal of breast and axillary glands. The patient went out well on March 19th.

CASE 4. *Cystic adenoma of breast.* — E. L——, aged thirty-five, married, from Sunbury, admitted March 29th, 1881. No history of malignant disease. Enlarged glands on both sides of neck, and scar of abscess opened thirty years ago. Swelling, size of a walnut, noticed on right mamma last summer, said to be hard and painless. In right mamma, at lower part, is a growth about the size of two walnuts, which seems separated by a slight interval. Growth appears attached to gland, and very movable. It is rather hard and nodular; no fluctuation detectable. Skin and nipple quite free; occasional yellowish discharge from nipple; had had this long before noticing growth. No affection of axillary or lower cervical glands. Patient has no children, and has had no miscarriages. Catamenia scanty for seven years.—April 23rd: Tumour operated upon antiseptically. Cyst opened and a tumour, the size of a walnut, of kind described as cystic adenoma, removed. Some of the cysts found to contain intra-cystic growths. Dressed on 26th. On May 7th the antiseptic dressings were left off. Discharged well on the 14th of May.

CASE 5. *Intra-cystic papilloma.*—M. C——, aged sixty-eight, a widow, from Holmwood, Dorking, admitted April 12th, 1881, with cancer of the breast. For twenty years has had yellowish discharge off and on from left nipple, continuing up to a year last Christmas, when a small swelling was first noticed in the breast, and the nipples became gradually flattened. Last summer she was struck by a calf's head in the breast; aching pains felt occasionally in the tumour shooting to the back; always tender on pressure; circumscribed tumour in left breast to left side of and beneath nipple; moves freely over subjacent tissues, and at centre is adherent to skin; fluctuation detected; nipple much retracted; glands in axilla not enlarged.—29th: Cyst tapped; tumour almost entirely disappeared; fluid straw-coloured, rather thick and viscid.—May 10th: Tumour smaller than on admission; fluctuation; recovered under antiseptic spray; chloroform; cyst rather larger than an average walnut; skin adherent to cyst wall; intra-cystic growth the size of a nut; cyst filled with bloody fluid; temperature never above 98·4° after operation. Went out well on May 25th. Mr. Anderson's report stated: Intra-cystic papilloma growing from a basis of fibrous and connective tissues, with glandular vestiges.

CASE 6. *Adenoma of breast.*—A. S——, single, aged forty-five, admitted on April 21st, 1881. Tumour of the left breast; lobulated; non-fluctuating; freely movable over subjacent tissues. The skin moves freely over it. There appears to be three hard masses, one below and to the outer side, one on the outer side, and one above. No swelling of the lymphatics. Fourteen or fifteen years ago had a blow. Mother died of cancer.—April 30th: Mamma removed antiseptically by ether. The cysts varied in size from a pin's head to a walnut. Several scattered through the gland. The cysts contained some grumous fluid, fluid-like serum, and jelly-like fluid of dark colour, as well as some hard solid material. The highest temperature after the operation was 99·6°. On May 17th a swelling formed about one inch and a half above the line of incision. The abscess was opened. The patient left the hospital well on May 28th, 1881. Mr. Anderson's report stated: The firm portions of the growth are purely glandular; the rest a loose connective tissue of very delicate structure. There is no trace of sarcomatous element.

CASE 7. *Carcinoma of left mamma.*—E. D——, aged forty, admitted May 27th, 1881. Swelling in left breast, very hard; feeling like scirrhous nodule. Skin non-adherent, painful; but more pain down the left arm; one gland in axilla. Right breast removed by Mr. Sydney Jones in November last. Cicatrix of right breast looks well.—May 28th: Operation under antiseptics and ether. Small tumour removed by oval incision; but as it presented characters of carcinoma, whole breast was removed. Drainage; silk and catgut sutures. Patient left the hospital on June 15th, 1881.

CASE 8. *Scirrhus of left breast.*—Mary M——, aged fifty-six, cook, admitted May 31st, 1881. Father and mother dead; one sister dead, two living; one healthy, the other suffers from fits. Eighteen months since she noticed a small lump in her left breast above the nipple—at first the size of a pea, but it has gradually increased. She has had no pain. Small ovoid tumour in upper part of the left mamma, irregular, hard, indistinctly marginated above and on sides continuous with gland tissue. Skin over it puckered; and slight enlargement of gland in axilla, attached to skin over it, and not freely movable over subjacent tissues. Breast and gland removed, under ether and antiseptics; drainage. Patient left hospital, well, on the 22nd of June, 1881.

CASE 9. *Adenoma of breast.*—M. H——, aged twenty-two, admitted May 27th, 1881. Swelling for three months in the right breast. No knowledge of injury. Pain for twelve months previous to swelling. Catamenia every fourteen days. On the upper and inner side of the right breast there was a small lump of the size of a filbert, hard, and freely movable. Skin not adherent; no axillary glands.—May 28th: Tumour removed under antiseptic spray, ether, drainage-tube, silk, and catgut sutures alternately. First dressed on the 21st, on account of some pain. On June 14th the patient left the hospital well.

WANDSWORTH AND CLAPHAM INFIRMARY.

TRAUMATIC RUPTURE OF ANTERIOR WALLS OF RECTUM; HERNIA OF INTESTINE; PERITONITIS; SEPTICÆMIA; DEATH; NECROPSY.

(Under the care of Dr. J. R. NEAL.)

FOR the following notes we are indebted to Mr. James Allan, late assistant medical officer.

Agnes J——, aged twenty-nine, was admitted at 3.30 A.M. on August 7th, 1881. She was under the influence of drink, excited, and apparently in great distress, and stated that soon after midnight she had been outraged by three men, who held her face downwards. She was scantily clad and her underclothing was blood-stained. There were recent bruises and scratches on her body, lower limbs, left arm and face. From the anus there protruded a loop of intestine, over a foot in length, distended with flatus, though otherwise empty; not strangulated, and showing appendices epiploicæ. There was no mark of injury about the genitals. The gut, having been smeared with carbolic oil, was returned without difficulty by manipulation. The rectum was very patent, and had in its anterior wall a solution of continuity of considerable size, within easy reach of the examining finger. Pain was complained of, and referred to the lower part of the abdomen. Immediate microscopical examination of the rectal and vaginal mucus for spermatozoa gave a negative result. The pain was relieved by subcutaneous injections of a grain and a half of morphia. Small doses of tincture of veratrum viride were given every four hours,

and continued till Aug. 9th, with a view to prevent inflammation (as suggested in Wood's Therapeutics, p. 154). On the evening of the 7th the temperature was 104·8°, and the pulse 108. On the 8th the morning temperature was 102·8°, pulse 96; evening temperature 100°, pulse 96. Fomentations with belladonna were applied over the abdomen. The bowels were moved. On the 9th the morning temperature was 101·2°, pulse 84; evening temperature 103°, pulse 108. Morphia injections were given twice a day. On the 10th the morning temperature was 102°, pulse 84; evening temperature 103·4°, pulse 96. Bowels moved during the night. On the next morning the patient was very sick, and she vomited greenish fluid. Morning temperature 101°, pulse 84; evening temperature 103°, pulse 100. On the 12th she was in pain; she had been restless and delirious during the night; the bowels were again open; she was not so sick. Morning temperature 102·2°, pulse 90; evening temperature 102·6°, pulse 96. On the 13th the morning temperature was 101·8°, pulse 84; evening temperature 103°, pulse 100. The patient had taken milk, lemonade, and a small quantity of wine. She was delirious during the night; the bowels were loose, and there was troublesome vomiting. On the 14th there was some cystitis; the urine was alkaline and albuminous, and contained mucus. Morning temperature 102·5°, pulse 84; evening temperature 102·8°, pulse 88. The vomiting continued next day and the bowels were loose; she was ordered champagne. On the 16th the morning temperature was 101°, pulse 96; evening temperature 103°, pulse 96. A pill containing one drop of creasote was given every four hours, and lime-water with milk. On the 17th the urine was offensive, and contained pus and urates. From this date to September 12th the temperature ranged from 97° to 100°; pulse feeble, and about 100. On Aug. 18th an effervescing mixture with carbonate of ammonia was ordered, also koumiss; patient very feeble. On the 20th no marked relief had been obtained from remedies. Ten drops of Ferris's nepenthe were given every four hours, and from this much benefit was derived. The appetite was very capricious.

On Sept. 4th the abdominal walls pitted on pressure; there was œdema of the legs; pain referred chiefly to hypogastric region. On the 5th, as the patient had for several days craved for beer, she was allowed half a pint of ale, and sherry. The beer appeared to agree with her. She also took wine whey, but sickness was easily induced by movement. On Sept. 8th there was pain during defecation; some blood in the stools. Four days later the morning temperature was 98°, pulse 90; evening temperature 103°, pulse 114. There was small crepitation over the base of the right lung posteriorly, and evidence of consolidation of a small area in this situation. On the 14th there was cough, with muco-purulent sputum, and distressing retching. A hypodermic injection of two grains of Bonjean's ergotine was given; for several days after this she was comfortable; it acted as a cough sedative, diminished the sputum, and notably relieved the retching. The temperature now, and up to the time of death on October 14th, varied from 98° or 99° in the morning, to 101° and 102° in the evening. She steadily wasted, there were no sweats, skin dry, odour fetid; stools very fetid; had a good deal of pain in the right iliac region. On the 30th on rectal examination the points of two fingers could be introduced into the bowel lesion, and advanced some distance through this opening. There was pain on palpation of uterus. The mouth was sore, and the tongue aphthous. She was relieved by the internal administration of glycerine, which also to some extent corrected the fetor of the stools. On Oct. 11th there was still evidence of consolidation of a portion of the right lower lung. Three days later she died exhausted, and much emaciated. At the time of admission she was a strong, well-nourished woman, probably about 9 st. in weight. The weight of the body after death was 70 lb., or 5 st.

Necropsy, forty hours after death.—Rigor mortis slightly marked; hair black, mixed with grey. Skull-cap compact and thick, especially on the vertex. Membranes on brain thickened and opaque. Cerebrum weighed thirty-nine ounces and a half; cerebellum and pons five ounces; tissue normal; convolutions large and coarse. The pericardium contained half an ounce of clear yellowish serum. Heart flaccid, weight eight ounces, was found to have undergone extensive fatty degeneration; with the exception of a minute black clot in each auricle, and a small white clot among columnæ carneæ of right ventricle, the cavities were empty. The aortic valve was not quite competent, its flaps thickened and unequal, ascending aorta atheromatous. In the right pleura there were about five ounces of serous fluid, the right lung weighed seventeen ounces and a half. A considerable portion of the lower lobe of this lung was consolidated, greyish on section and with small purulent areas here and there scattered through it; the pleura over affected area was covered with false membrane, as also corresponding part of costal pleura. Left lung fourteen ounces in weight. At the posterior part of the upper lobe, and reaching the fissure inferiorly, there was found a small portion of lung, pyramidal in shape, consolidating and presenting appearances similar to diseased area of the right lung. Other parts of both lungs emphysematous and œdematous, the alveoli and alveolar walls crowded with small cells, and there was evidence of inflammation of the lymphatics. Abdomen:—Great omentum adherent inferiorly, slight adhesions of liver to diaphragm. Weight of liver forty-six ounces and a half; the microscope showed very marked fatty degeneration of its tissues; the gall-bladder full; the coils of ileum matted together and fixed by adhesions in the pelvis, covered the lesion in the rectum, and prevented extravasation of fæces. A coil of small intestine was also adherent to the front of the cæcum, and at the area of contact the cæcum had ulcerated through; this was probably the seat of pain complained of during life, and referred to the right iliac region. The small intestine was sixteen feet long, and at several parts of the adherent ileum there were small purulent collections in the intestinal wall. No pus in the abdominal cavity. The rectum at a point corresponding to the lower limit of Douglas's pouch and three inches and a half from the verge of the anus had been torn half across anteriorly; the upper margin of the rent was about an inch removed from the lower. The vagina was two inches long, uterus one inch and a half; bladder small, thickened, mucosa thick and vascular. The kidneys together weighed eight ounces, slightly granular, the pancreas three ounces, and the spleen five ounces in weight, the latter firm.

Remarks.—The case was tried, some of the culprits pleaded guilty to indecent assault, but it appeared in evidence also that a moderate sized cucumber had been thrust into the woman's rectum. Experiments on cadavera demonstrate that if a rigid rod be introduced into the rectum of a subject in supine position, it is likely to impinge on the sacrum, and not to rupture the gut, but that if in the prone position rupture takes place into Douglas's pouch, that the small end of a cucumber is readily introduced, and being flexible readily ruptures the rectum anteriorly in any position of the dead body. It is probable that, during life, the contraction of the bowel on introduction of a foreign body would facilitate rupture of rectum. The prolapsed bowel had appearance of great intestine, and was probably sigmoid flexure.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Xanthopsia.—Nephro-lithotomy.

THE ordinary meeting of the Society was held on Friday, Jan. 27th, Joseph Lister, Esq., F.R.S., in the chair. Four cases of removal of stone from the kidney were related, and formed the subject of an important discussion.

Mr. W. H. KESTEVEN read notes of a case of Xanthopsia. On July 15th, an exceptionally hot day, a married woman, aged twenty-three, having exposed herself to the full heat of the sun, was seized with acute pain in the occiput, and found that she saw all things red and green. As the pain passed off in the course of a day or two, this intense colouration diminished. The ophthalmoscope revealed the existence of a large patch of double-contoured nerve fibres at the upper part of the disc of the right eye. This, when first seen, was very prominent, and gave evidence of the existence therein of some neuritis. The left disc was normal. The colour vision of the left eye was normal, but with the right eye she saw all things yellow. This condition continued for rather more than three months, and then gradually passed away. The author suggested that the condition might be explained

by the violent impression made by the rays of the sun impinging directly on the retina. The case was seen by Dr. Buzzard and Mr. John Couper, both of whom confirmed the ophthalmoscopic appearances described.

Mr. MARCUS BECK read a paper on a case of Nephro-lithotomy. This case closely resembled, in many respects, that communicated to this Society by Mr. Morris, differing chiefly in the fact that the stone could not be felt after the kidney was exposed, and its presence was only recognised by puncturing the gland with a fine needle, as recommended by both Mr. Morris and Mr. Barker. The patient was a young man, aged nineteen, who had suffered for twelve years from symptoms of renal calculus. One year before he applied at University College Hospital his symptoms had suddenly increased in severity, after a profuse attack of hæmaturia. From that time he was practically unable to earn his living on account of the severe pain invariably brought on by any movement. He suffered from considerable frequency of micturition. He only passed blood recognisable to himself on three occasions. He applied to various hospitals and medical men without relief. He was admitted into University College Hospital on July 21st, 1881, and was treated by rest for three weeks without the slightest benefit. During this time no blood was noticed in his urine, but it always contained a very small quantity of pus. His symptoms while in the hospital were those ordinarily observed in cases of renal calculus. Examination of the loin under chloroform showed the absence of any recognisable renal tumour. A distinct fulness, which was always clearly visible in the loin, seemed to be due to contraction of the muscles over the tender kidney, and possibly to some hypertrophy. On Aug. 16th, 1881, the operation of nephro-lithotomy was performed. The incision was slightly nearer the last rib, and a little more oblique, than the ordinary colotomy wound. The muscles were very thick for so feeble a subject. The kidney was exposed without difficulty in its lower half. Manipulation failed to detect a stone. The kidney was then punctured with an ordinary needle held in a pair of torsion forceps and the presence and situation of the stone were easily recognised. A knife was passed into the kidney with its edge turned upwards. The hæmorrhage, which was at first very alarming, was arrested in less than one minute by the pressure of a sponge. The wound was then dilated with a pair of polypus forceps, with which the stone could be felt, but not grasped. The finger was therefore inserted into the pelvis to guide the forceps, and the stone was then easily removed. The hæmorrhage ceased at once. A large drainage-tube was inserted, with its deep end in the fat about the kidney, and the wound closed with sutures. The whole operation was performed under the carbolic spray, and the wound was dressed with carbolic gauze. The stone weighed 29 grs. It was heart-shaped, and had apparently been moulded to the form of a calyx. It was composed chiefly of uric acid. The shock after the operation was not great, and only lasted a few hours. There was much vomiting for the first thirty-six hours. He passed no urine for twelve hours, but at the end of that time twelve ounces were drawn off by a catheter, after which he passed it naturally. No urine escaped from the wound until the seventh day; it then flowed abundantly till the eleventh day, when it ceased to pass by the wound. At the end of the third week he sat up in bed, in another week he got up, and at the end of the fifth week the wound was quite healed. The temperature never rose above 101·5° F., and after the eleventh day it remained below 100°. He suffered no pain after the second day. This case presented all the conditions justifying the operation. The patient was totally incapacitated from earning his living. It might be presumed that the stone was too large to pass by the ureter, as it had existed in the kidney for a period of twelve years. Treatment by rest had been tried without benefit. With the exception of the symptoms due to the stone, the man was in good health, and he was young and not too fat. The small quantity of pus in the urine showed considerable irritation of the pelvis. A noteworthy point was the sudden alteration in the symptoms which took place about a year before the operation, accompanied by profuse hæmaturia. Up to that time jolting such as is caused by riding in a train caused little pain, and there was no frequency of micturition. The attacks of pain were always brought on by prolonged walking. After that time there was gradually increasing frequency of micturition, and pain was caused both by jolting and walking. It seemed probable that the change was caused by the stone passing from a calyx into the pelvis of the kidney. The stone showed it was originally moulded in a calyx, and at the operation was found in the pelvis. A like difference of symptoms has been observed in other cases of renal calculus, in some the pain being brought on by the movement of the muscle in the neighbourhood of the kidney rather than by jolting of the body. As all the graver consequences of renal calculus arise from the presence of a strain in the pelvis, and as the chances of cure by the stone becoming encapsuled are certainly great when the calculus is lying in a calyx, it is important to distinguish these two conditions. Future observation might show some such rule as the following to be true. When the pain is induced by walking only and there is no morbid frequency of micturition, the stone is probably enclosed in a calyx; when the pain is greatly intensified by jolting of the body as well as by walking, and when there is yet a frequency of micturition, the stone is probably lying loosely in the pelvis. With regard to the operation itself, the chief points of interest were the success of puncturing the kidney with a fine needle in finding a stone which could not be detected by manipulation; the rapidity with which the bleeding from the kidney was arrested by simple pressure with a sponge; and the simplicity and ease of the whole operation, which was no more difficult than an ordinary perineal lithotomy. To avoid too great loss of blood the knife should be used as little as possible, the wound being enlarged by tearing. The rapid healing was in great part due to the thickness of kidney tissue cut through, which prevented to a great extent the escape of urine by the wound. The depth of the wound, the decomposable matter lying in it, and the dangers of disseminated suppuration of the kidney and septic pyelitis, render the antiseptic treatment of the greatest importance.

Mr. H. BUTLIN read notes of a case of Renal Lithotomy. The patient was a young man aged twenty, who for ten or twelve years had suffered from severe attacks of neuralgia of the testis. The attacks occurred very frequently and lasted from thirty minutes to two or three hours. After his admission into St. Bartholomew's Hospital in September, Mr. Willett discovered that the pain was seated in the right side of the abdomen as well as in the testicle, and that the symptoms were those of renal colic rather than neuralgia of the testis. The urine contained crystals of calcium oxylate, and occasionally traces of albumen, but no blood or pus. In spite of the pain the patient's health was fairly good. As treatment did not afford permanent relief Mr. Butlin cut down on the kidney through a vertical incision in the lumbar region. The kidney appeared to be healthy, but a calculus was discovered and removed from the renal pelvis. It was composed of calcium oxalate, was about as large as a filbert, and quite prickly on the surface. The patient made a good recovery, so that two months after the operation, which was performed on October 5th, he was discharged free from pain and quite well except that a small quantity of pus was present in the urine. Lister's antiseptic dressing was employed, but this was abandoned two days after the operation, and the wound was treated, as far as possible, like an ordinary lithotomy wound. Urine ceased to flow through it after about the seventeenth day. This case is of interest not merely as a contribution to the successful treatment of renal calculus, but as an important contribution to its diagnosis. The absence of blood in the urine is especially remarkable when the situation and nature of the stone are considered.

Dr. WHIPHAM and Mr. J. W. HAWARD contributed histories of two cases of Nephrotomy for the Removal of Renal Calculi. Case 1: A married woman, aged twenty-three, was admitted into St. George's Hospital under Dr. Barclay on Sept. 10th, 1880. The family history was good. The patient gave a clear history of having passed a calculus seven years previously. It was a rough stone, which gave much pain. After this she remained in fairly good health, and although she experienced no paroxysms of pain, yet she was never free from constant uneasiness in the left side. She had never been very robust. Nine weeks before she came under Dr. Barclay's care the pain in the left loin recurred with great severity; she lost much flesh, and the urine became "very thick" and offensive; she experienced pain in micturition. While under observation she complained of shooting pains in the left loin, weakness, and loss of appetite. The abdomen was flattened, and neither dulness nor swelling was detected on the right side. On the left side the muscles were firmly contracted, and therefore no tumour was found. There was great tender-

ness over the left hypochondriac and lumbar regions, and slight tenderness in the right groin. The urine contained much pus and was alkaline. During the patient's residence in hospital she suffered great pain in the region of the left kidney, and had occasional perspirations. Eventually the urine became acid and the pain was much relieved, and she was discharged, somewhat improved, on Oct. 23rd, 1880. On March 21st, 1881, she was readmitted under Dr. Whipham's care, when she stated that she had in the interval never been free from pain, which for the past week had been intense. The urine had been persistently turbid, and she had vomited. On March 20th she had noticed a few clots of blood in the urine. The abdominal tenderness was so great that no satisfactory examination could be made. As no improvement took place, Mr. Haward was called in consultation, and he decided on attempting to remove the calculus by nephrotomy. The patient having been placed under the influence of ether, a tumour was distinctly felt in the left loin, and an incision was made as if for lumbar colotomy. The surface of the tumour was exposed; a bistoury was thrust into it, and the finger passed into the dilated pelvis of the kidney. A firmly fixed stone was at once detected, and without much difficulty removed, together with a few small fragments. Very little blood was lost. The patient did extremely well, and on July 16th was discharged, there being still a little oozing from the sinus in the loin, and a small quantity of pus in the urine. The stone weighed 47 grs., and was composed of phosphate of lime. The second case was that of a woman aged fifty-six, who was admitted under Dr. Whipham's care on Oct. 3rd, 1881. She had suffered from pain on micturition for several years. In 1879 both gravel and blood were present in the urine. She was not aware that she had passed a stone. In Oct. 1880, she had a sharp attack of vomiting, followed by pain in the left lumbar region and hæmaturia. While under observation she complained of an increase of this pain, and the abdomen was generally tender. There was great muscular resistance on the left side, and fulness and tenderness on pressure on the right side. Fluctuation was detected on Oct. 6th in the left loin, and Mr. Haward, who saw the patient on that day, made an incision into the swelling. During the night a copious discharge of pus occurred, with great relief to the pain. No calculus could be found. The urine contained much pus. On Nov. 3rd, the patient having become worse, the incision was extended, and the wound thoroughly explored; no calculus was found, but as the kidney and tissues were so firmly matted together no further operation was deemed advisable. The patient died next day. At the post-mortem examination it was found that the kidney lay in a cavity, whose contents were purulent; that its pelvis was dilated, and communicated with this cavity by a large irregular opening, through which one or two fingers could be passed. Two or three small fragments of stone were found in the calyces. A large branching calculus occupied the calyces of the right kidney. These two cases were brought forward as illustrating the propriety of cutting into the kidney in cases where the diagnosis of renal calculus is clearly established, and as affording encouragement to the surgeon to perform the operation of nephrotomy in the earlier stages of the disease rather than to postpone surgical interference until dilatation or suppuration of these organs has occurred.—Mr. CLEMENT LUCAS related a case in which he cut down upon the kidney, but failed to find a stone. The patient was a man aged forty-nine, who two years before had suffered from acute pain and hæmaturia. These symptoms passed away, and he remained free from them for six or nine months, when he was again attacked with profuse hæmaturia, and became very anæmic. He passed triangular clots, presumably casts of the renal pelvis. After a month's observation Mr. Lucas performed the exploratory operation under antiseptics. He regretted that he did not also explore the organ by acupuncture, but at that time thought this was a more dangerous procedure than it had been shown to be. Eleven days after the operation the patient was sitting up, and on the seventeenth day he left the hospital with the wound soundly healed. Great relief was obtained. He has since returned with evidence of phthisis, so that it is possible he has strumous disease of the kidney. Mr. Lucas remarked on the simplicity of such exploratory measures, which he would recommend in any doubtful case.—Mr. BARKER said it might be taken as proved that the danger of hæmorrhage from the renal incision was not so severe as was thought. He referred to Professor Brandt's case of "hernia of the kidney" following a wound in the loin, the organ being removed on the fourth day after injury. Mr. Barker had related this case in his paper in the Med. Chir. Transactions, vol. 63. In one case he was struck with the rapidity with which bleeding ceased after incision of the organ; and that was also shown in Mr. Beck's case, where very moderate pressure sufficed to arrest the bleeding. Such facts prove that incision or puncture need not be feared.—Mr. MORRANT BAKER pointed out the importance of a recognition of a totally different class of cases from those just recorded—e.g., such a case as he related in a paper at the Congress, where there was a renal abscess, and on exploration a large branched calculus, only dislodged with much difficulty and considerable hæmorrhage. This kind of case should be regarded as distinct from those where only small stones occurred; and it was a question whether, in such a case, it would not be better to remove the whole kidney.—Mr. BARWELL had not had occasion to remove a stone from the kidney, but had cases in which he had to remove the whole kidney. He thought it desirable not to let cases in which a stone is suspected go on with prospect of ultimate damage to the organ when a simple incision and puncture would inform the surgeon of the presence of a stone. The incision, too, is made in a part which is free from danger. Hardly any pyrexia follows. He hoped these cases would still be kept in view, so that we may learn whether a stone would again form, or whether the kidney would become mobile.—Dr. BARLOW said that Mr. Morris had laid great stress on the difference between cases in which the kidney was healthy and those where pyelitis and destructive changes existed. This point required to be insisted on, for cases such as that described by Mr. Baker belonged to the second class. About three years ago he (Dr. Barlow) had under his care a Jewess, about forty-seven years old, passing pus in the urine, and who had had pain and swelling in the right loin for eight months. Mr. Couper was consulted, and a grating sensation was felt in the swelling. An incision was made and pus escaped from the kidney, which contained three large calculi. The organ could not be removed. Death took place next day. It was manifestly unfair to nephro-lithotomy to contrast it with such cases as that.—Mr. BAKER added that in his case the stone weighed two ounces.—Dr. LONGHURST pointed out that the successful cases appeared to be those in early life; the fatal ones in older subjects. He knew of a nobleman, the subject of renal calculus, who was advised by a surgeon in Paris to submit to this operation, but he would not consent, and a year later, after a similar attack, died. Both kidneys were found blocked by enormous calculi. In another case, a patient who had symptoms for eighteen months passed one or two small stones per urethram. Hence discretion should be exercised in the selection of cases for operation.—The PRESIDENT said the Society and the authors were to be congratulated on this important series of cases. They were of interest pathologically, for they dealt with calculi of different composition, oxalic, uratic, and phosphatic; and they illustrated the long time that calculi may remain in a kidney without increasing in size; so different from the case of vesical calculi. It seemed as if there were greater concentration of urine in the bladder than in the kidney. The question of diagnosis was also very interesting; almost the sole symptom in Mr. Butlin's case was the neuralgia in the testicle, hæmaturia being absent. It reminded him of one of John Hunter's cases of stone in the bladder, marked only by pain in the arm. As to the operation itself, the incision in the loin was devoid of danger, especially if antiseptics were used. He thought an acupuncture-needle more convenient to explore the kidney than the needle used by Mr. Beck, who, however, was not only able to detect the *presence* of the stone, but also to estimate its *size*. By such a method the surgeon might decide whether the stone were too large to be extracted from the organ, which would then have to be removed entire. The free hæmorrhage, and its rapid arrest in Mr. Beck's case, reminded him (Mr. Lister) of the hæmorrhage that ensued on incision of the liver in a case of hepatic abscess which he had seen with Sir Joseph Fayrer, who had remarked that such free bleeding often occurred in opening liver abscesses, and was of no consequence. In the renal operation it seemed better to incise the renal substance than the pelvis.—Mr. BECK and Mr. BUTLIN waived their right to reply.—Mr. HAWARD, in reply, said that he was glad to have heard the opinions to be in favour of *early* operation, and agreed with Mr. Baker that, in advanced cases, removal of the whole

organ was preferable to attempted extraction of the calculus. Removal of the kidney in these cases was not always a simple matter, and sometimes impossible—e.g., in the second case related by Dr. Whipham and himself.

The Society then adjourned.

MEDICAL SOCIETY OF LONDON.

Syphilitic Pachymeningitis of Cerebellar Fossa.—The Proposed Hospital and Accident Ambulance System.

AT the meeting of this Society on Jan. 30th, the President (Dr. BROADBENT) related the post-mortem appearances in a case of Paralysis of the right Seventh, Eighth, and Ninth Nerves, which had been shown to the Society at the meeting on October 31st, 1881 (see THE LANCET, 1881, vol. ii., p. 797). There was a syphilitic history; after pain in the right occipital region; paralysis came on successively in the seventh, eighth, and ninth nerves of this side. There were deafness as well as facial paralysis, paralysis of the sterno-mastoid and trapezius muscles, with atrophy so complete that these muscles had practically disappeared, and also paralysis of the vocal cord; paralysis and atrophy of the right half of the tongue came on while the patient was under observation. The patient, a woman, was one of two exhibited as illustrating—the one disease within the medulla and pons, the other disease outside the nervous centres. The diagnosis of disease outside the medulla and pons was founded on three considerations: (1) the sixth nerve was not implicated as well as the seventh; (2) both divisions of the spinal accessory were involved, and it was highly improbable that the spinal nuclei could be reached by an internal lesion; and (3) it was almost certain that disease involving not only the nuclei of the facial, pneumogastric, glosso-pharyngeal, spinal accessory, and hypoglossal nerves, but the auditory nucleus would also implicate ascending fibres from the cord, and give rise to cross paralysis. It was supposed that the lesion would be a syphilitic gumma in the lateral aspect of the medulla and pons rather than any disease affecting the widely separated foramina. It turned out to be one of syphilitic pachymeningitis of the right cerebellar fossa. When the tentorium was divided the right lobe of the cerebellum was found to be closely adherent to the dura mater, and the thickened membrane to have strangled the nerves at their exit by the foramina. This was the sole lesion, the medulla and pons being quite normal, as were all parts of the brain.—Dr. HUGHLINGS-JACKSON said that in most of these cases there is a history of syphilitic disease, and he had recorded two somewhat similar cases in the London Hospital Reports. In both of these cases the lesions were the result of syphilis. At the post-mortem examination there was atrophy of the crico-arytenoid muscle on the affected side. Syphilis was not invariably the cause of these conjoined symptoms. In one case a cyst in the cerebellum was discovered, although during life Dr. Jackson had little doubt as to its syphilitic nature. Towards the close of life this patient had retraction of the head. In another case, where syphilis had been suspected, the post-mortem revealed a glioma, which had involved the medulla and pons. He referred also to certain allied cases of Duchenne's paralysis and progressive muscular atrophy in illustration of Dr. Broadbent's remarks.

Dr. HOWARD of New York read a paper on the proposed Hospital and Accident Ambulance System for London. (The paper is published in p. 172).—The PRESIDENT, in thanking the author, said that the system proposed appeared to be one not only indispensable but practicable. The necessity for such a system was great, and it would doubtless meet with hearty co-operation.—Mr. J. H. CROSSMAN, Deputy Chairman of the House Committee of the London Hospital, stated that it was owing to a conversation he had held with Dr. Howard that he had brought the subject under the notice of his Committee, and he was glad the impressions he then received had been communicated to others. He thought that large employers of labour would be the first to see the value of such a mode of transport for the sick and wounded, and mentioned that already an ambulance similar to that of the London Hospital had been ordered for some large gas works. He was sure this movement would have the confidence and sympathy of the public.—Mr. BRYANT said that Dr. Howard had ably demonstrated a want daily felt by all those conversant with the needs of the receiving-room of a large hospital. The fact that in Guy's Hospital in one week three fractures, originally simple, had been rendered compound by the ignorant method of transport, sufficed to prove the need of some such system. He referred to the difficulties of working it, and pointed out that it was hardly right to call upon the hospitals to provide ambulances, or to keep horses and men continually in readiness; for the responsibility of hospitals commenced only on the arrival of the patient. It was the business of large manufacturers and the public to provide means of safe transit for patients, although the hospital might easily supply the adequate skilled attendance. A hospital like Guy's, situated in so large a district, could not possibly by means of one ambulance supply the demands of the numerous accidents daily applying for admission.—Mr. GANT thought it would be premature, if not impossible, to decide upon the manner in which the proposed scheme should be carried out; but it could only be done by combined effort on the part of all the authorities concerned. He could testify personally to the ease and comfort of the ambulance, the movement being free from oscillation. He illustrated the necessity for such means of transport by referring to the fact that those seriously injured in the recent railway accident on the Great Northern Railway had been conveyed to the Royal Free Hospital in cabs.—Mr. DAVY said that the matter had been frequently discussed in the medical journals, but had never until now been taken up by the public. Dr. Howard's ambulance was admirably adapted for country districts or railway journeys, but he preferred the ordinary wheel litter or police stretcher for metropolitan districts. This, too, was the opinion of a public inspector who had seen the ambulance. Mr. Davy strongly animadverted on the insufficient provision for the transit of invalids made by the railway companies, and commended the slinging method adopted by the London and South Western Railway Company.—Dr. GILBART SMITH thought the necessity for some carefully devised ambulance system had been amply demonstrated by Dr. Howard. The barrow litter or stretcher was only suitable, if at all, for short distances. He referred to the fact recently shown by the Metropolitan Counties Board of the British Medical Association that hospital accommodation in London was imperfectly distributed, and in many districts was wholly inadequate; for out of a total of 4500 beds, no less than 3500 were situated within a radius of a mile and half of Charing-cross, thus leaving the thickly populated outlying districts almost entirely unprovided for.—Dr. S. MACKENZIE said that the care, skill, and ingenuity displayed by Mr. Howard, appeared to him to have been eminently successful in devising a vehicle suited for the conveyance of the sick of all kinds. At present cases of apoplexy occurring in the streets were rattled over the stones, and patients suffering from typhoid fever, in an advanced stage, with ulcers in the ileum threatening to perforate, were doubled up in cabs. If persons, suffering from serious illness, could by application at a police station obtain an ambulance to carry them to a hospital, the poor of the metropolis would be greatly benefited.—Dr. HOWARD, in reply, stated that he disliked the wheel-litter, for it possessed no single qualification for the work required of it.

MIDLAND MEDICAL SOCIETY.

AN ordinary meeting of this Society was held on January 18th, the President, J. Manley, Esq., in the chair.

Dr. BARLING exhibited a specimen of Latent Fracture of the Tenth Dorsal Vertebra with Pachymeningitis Externa, in which symptoms were absent during life. The pedicle on both sides of the bone was seen to be broken close to the body, and the spine was tilted a little downwards; the fracture also extended transversely through the middle of the body of the vertebra without causing displacement and without rupturing the anterior or posterior common ligaments. On the external surface of the dura mater, opposite the seat of fracture, there was a deposit of lymph the size of a shilling. The other membranes and the spinal cord itself were quite healthy. The patient from whom this had been taken was a middle-aged man who, when driving under an archway, bent forward to avoid striking his head; the arch, however, struck him in the back, and caused a doubling up of the body. Scarcely any pain was complained of in the back, but the interval be-

tween the ninth and tenth dorsal spines was a little exaggerated. Death resulted eighteen days after the accident, from injuries to the thorax which set up pleurisy and pericarditis.

Dr. BARLING also showed a specimen of Fracture of the Base of the Skull confined to the anterior fossa, in which during life there was severe hæmorrhage from the nose, and a few hours after admission into the General Hospital a small quantity of clear serous fluid was discharged from the left auditory meatus; this continued for the thirty-six hours of life which followed the accident. At the post-mortem considerable brain laceration was found. There was no fracture of the petrous portion of the temporal bone, but a rupture of the left membrana tympani existed. It was therefore concluded that the fluid exuded during life was secreted by the living membrane of the tympanum.

Dr. WARDEN read a paper, and exhibited a patient, fifteen years of age, upon whom double supra-condyloid osteotomy had been performed for genu valgum. Instead of strictly following Macewen's method of procedure the wound was made above the external condyle, and the femur divided with three osteotomies from without inwards. The result of the operation was very satisfactory; the feet, which previously had been twenty-four inches apart when the internal condyles were approximated, could now be brought close together.

A discussion followed, in which Messrs. Furneaux Jordan, Freer, Jordan Lloyd, Chavasse, and Barling took part.

Reviews and Notices of Books.

Eczema and its Management. A Practical Treatise based on the Study of 2500 Cases of the Disease. By L. DUNCAN BULKLEY, A.M., M.D., Attending Physician for Skin and Venereal Diseases at the New York Hospital, &c. London: J. & A. Churchill. 1881.

THIS considerable work, which extends to 344 pages, is based on a number of papers read before different meetings or Societies, or published in journals, during the last seven years, and especially on an essay written in 1874 on the "Management of Eczema." One result of the book having grown in this way is, that although the author has worked over the ground again, and very carefully arranged the sections and chapters, there is a certain amount of repetition as regards etiology, diagnosis, and treatment. However, we do not know that this will be any great drawback to the general practitioner, for whose aid in the management of eczema Dr. Bulkley has specially compiled this book. There are no new or original views set forth as to etiology or treatment, though the statistics are valuable; but the author clearly expounds what we know at present about eczema, and how we should treat its protean phases. His conclusions are based on his own large experience in the light of others' work, and in his preface he expresses generally his indebtedness to other writers, and explains the notable absence of references to authors in the body of the work. One of the most interesting chapters is that on the etiology of eczema; and it is noticeable that, although the author studied under Hebra and translated Neumann's work, he is a strong advocate for the constitutional origin of eczema (using the word "constitutional" in the same sense as it can be applied to gout, rheumatism, scorbutus, &c.), as opposed to the purely local pathology advocated, but afterwards in some degree modified, by Hebra. Dr. Bulkley does not deny the effects of local causes in the production of eczema in those predisposed to the disease, but with him the local excitants play a very secondary part as compared with the constitutional causes. His experience with regard to these underlying constitutional states brings him in close accord with the views of Dr. Tilbury Fox, and especially of Sir Erasmus Wilson, for he holds that the chief predisposing factor is *assimilative debility*, which is largely synonymous with the gouty state or that leading to gout; that a second factor is *nutritive debility*, generally of a strumous type, and most noticeable in children; and that a third cause is *nervous debility, neurasthenia*, or *lowered vitality of the nerve action*, mostly seen in adults. Dr. Bulkley says no hard-and-fast lines can be set down, but experience teaches that these states point out the direction our inquiries should take. We cannot, however, gather any very clear idea as to the exact method of operation by which these causes set up eczema, and perhaps it is hardly to be expected in the present state of our knowledge. Thus Dr. Bulkley, though allowing that the "products of imperfect nutrition give rise to irritation of tissue," holds that there is, as accounting for eczema, no special dyscrasia nor any one definite constitutional state, nor any specific poison or ferment or *materies morbi* seeking elimination and in the process setting up inflammation, but that the forms of debility above mentioned lead to a lowering of the vitality of the skin, and so predispose to the special eczematous inflammation, which Dr. Bulkley holds with Tilbury Fox is of the catarrhal type, and distinct from all other kinds of inflammation of the skin. The exact manner in which the inflammation arises, however, in the absence of the exciting local causes which play comparatively so secondary a part, is not clearly and definitely worked out. The mode of operation of neurasthenia is confessedly conjectural only, and with regard to the action of struma in producing eczema, Dr. Bulkley says its "exact bearing is not definable." No one doubts the modifying influence of struma, but as to any causal connexion with eczema, it is very significant that pronounced evidences of struma are not commonly seen associated with eczema, and pus formation in children is not necessarily due to struma by any means. The treatment is very fully considered, and the rules laid down are excellent, and it is a noticeable feature that whilst thoroughly *au fait* with Viennese methods of local treatment, Dr. Bulkley insists strongly with the English school on treating the early and acute stages of this inflammation by soothing measures. In conclusion, we may say that the book is clearly written, is well printed, and is thoroughly practical, and that in the management of eczema the practitioner will here find a safe guide.

Elementary Treatise on Physics, Experimental and Applied. Translated from Ganot's "Eléments de Physique," by E. ATKINSON, Ph.D. With 864 Illustrations, pp. 972. London: Longmans and Co. 1881.

Elementary Treatise on Natural Philosophy. By A. PRIVAT DESCHANEL. Translated and Edited, with extensive modifications, by J. D. EVERETT, of Belfast. Illustrated by 783 Engravings on Wood, and 3 Coloured Plates. Sixth Edition, pp. 1156. Blackie and Son. 1882.

THE gradually increasing strictness of examinations preliminary to entrance into the profession, not of medicine only, but of other avocations, has called forth new editions of the two excellent works that appear above. Deschanel's treatise has reached its sixth edition, and Ganot's its tenth. We have looked through both works, and confess ourselves quite unable to assign the superiority to either. Both are well written and well illustrated; both give all that a student needs to know of these subjects—much more than the great majority are ever likely to learn—but all of which might be acquired with great advantage by any man who wishes to be regarded as well-educated.

Professor Everett states that in the present edition he has almost rewritten Part I., embracing Statics and Dynamics, and has introduced throughout the C.G.S., or centimetre gramme second system, which, having received the sanction of the British Association and of the Physical Society of London, has come into very general use. Upon examining the first part, and comparing it with the old edition (1872), we find Professor Everett's statement fully borne out, and that he has not only made considerable additions, but has practically rewritten the entire part;

the reader, indeed, will find he has before him both a full and a clear exposition of such subjects as the resolution of forces, the action of gravity, the action of the several mechanical powers, hydrostatics, capillarity, the various forms of air pumps, and the efflux of liquids. The various forms of telegraphic apparatus, including the single needle dial, Wheatstone's universal telegraph, Morse's instrument, Hughes' printing telegraph, the electro-chemical telegraph, the autographic instrument of Caselli—sometimes called the pantelegraph, since it can copy not only letters but a design of any kind,—and Cowper's writing telegraph, are all fully given, the numerous woodcuts that accompany the letterpress materially aiding the reader in understanding descriptions that would otherwise be both tedious and difficult. Still more interesting are the accounts of the miscellaneous applications of electricity in the telephone and the microphone, but so rapid has been the progress of the science of electricity that we almost feel surprised that the only system of lighting mentioned is that of Jablochkoff, and that no mention is made of the Brush light, the Maxim light, or of the various forms that are in common use, nor of the accumulator of Faure, a description of which lately appeared in our columns. Of course, it cannot be made a subject of complaint that a work does not contain facts which have only been known since it was in the press, but it is a striking example of the activity with which physical science is pursued.

The chapter on Steam and other Heat Engines, though short, is so well illustrated that the construction of the usual forms of the steam, gas, and air engines may be perfectly understood, and the arrangement of the parts of the slide valve, injector, and apparatus for reversing is easily followed.

The section on Thermometry is remarkably full and complete, descriptions and in most cases woodcuts being given of all the thermometers in use at the present time, some of which are exceedingly ingenious in their arrangements.

The gradual development of the powerful dynamo-electric machines now in use, from the simpler forms suggested by Clarke and Pixii to the powerful instruments of Wilde, Ladd, and Siemens, is very instructively given. But one of the most interesting chapters in the work deals with the history of the electric telegraph. Bishop Watson, it appears, as long ago as 1747 effected the transmission of the discharge of a Leyden phial through 10,600 feet of wire suspended between wooden poles at Shooter's Hill; and in 1774 Lesage erected at Geneva a telegraph line consisting of twenty-four wires connected with the same number of pith-ball electroscopes, each representing a letter; and in the same year Reusser in Germany proposed to replace the electroscopes by spangled panes exhibiting the letters themselves.

Professor Atkinson states that the present edition of Ganot has been augmented by about twenty-five pages. Like Deschanel, numerous question examples are given by which the student may test his familiarity and comprehension of the sections he has read. We miss in this work, in the chapter on Heat, an account of Six's self-registering thermometer, Phillips' maximum thermometer, and Walferdins' thermometer; on the other hand, the expansion of solids and liquids is both well described and well illustrated.

The student will not be disappointed whichever of the two works he selects, and if he has time at his command he will do well to read them both.

An Index of Surgery. Being a Concise Classification of the Main Facts and Theories of Surgery for the Use of Senior Students and others. By C. B. KEETLEY, F.R.C.S., Senior Assistant-Surgeon to the West London Hospital, Surgeon to the Surgical Aid Society. London: Smith, Elder, and Co. 1881.

"THIS book is intended to be read by the senior student shortly before he goes in for his final examination, and after he has carefully studied a complete text-book of surgery." Such is the opening sentence of Mr. Keetley's preface, and, of course, the aim of the writer must always be kept in view in judging of his work. The concise notes are well done, accurate, full, and up to date; and granted that the object is good, its accomplishment is excellent. We know of hardly any greater calamity befalling a student who has not "carefully studied a complete text-book of surgery" than to study this index, for it will give him the semblance of knowledge without the substance, and will spoil his taste for the larger and more instructive works. Those who have studied surgical text-books, we would advise to make such notes, or index, or abstract of what they have read, heard, and seen, for themselves. The chief value of such notes lies in the making, not in the reading of them. And we must confess to viewing with some jealousy all attempts at enabling men to pass examinations by any other means than personal observation and work. This index is, however, free from many of the faults of "crams," and has evidently been carefully done; and if only used by those who already know their surgery and for the sole purpose of systematising and classifying their knowledge, we doubt not it will be found useful.

THE PARKES MUSEUM.

A MEETING of the Executive Committee of the Parkes Museum was held on Friday, Jan. 27th, 1882, Professor Berkeley Hill in the chair, when Mr. Basil Field was appointed Honorary Solicitor to the Museum.

The Curator, Mr. Mark H. Judge, as Secretary of the recent International Medical and Sanitary Exhibition, presented the final report of the Exhibition Committee, which, after giving a detailed account of the origin and success of the undertaking, concluded as follows:—"The work for which the Exhibition Committee were appointed having now come to an end, they have the satisfaction of handing over to the Executive Committee of the Museum the sum of £933 11*s.*, together with furniture and fittings to the value of £100, while contributions to the Guarantee Fund to the amount of £86 19*s.* have been transferred to the Parkes Museum Building Fund, making the financial result of their labours a profit to the Parkes Museum of £1120." The report was signed by Mr. John Eric Erichsen, F.R.S., the Chairman, and the Secretary.

On the motion of Professor Hayter Lewis, seconded by Dr. W. R. Gowers, it was unanimously agreed that the report was eminently satisfactory and that it should be entered on the minutes.

The Honorary Secretary, Dr. G. V. Poore, read a communication from the Council of University College, in which that body agreed, with some modifications, to proposals which had been made on behalf of the Museum to the Council of the College, in reference to the erection of a building for the Museum. After a long discussion, in which Professor Berkeley Hill, Professor Hayter Lewis, Dr. W. R. Gowers, Professor Corfield, and Mr. Rogers Field took part, the modifications suggested by the Council of University College were accepted, and it was resolved that steps should be taken to obtain the funds necessary for carrying out the scheme which embraces: 1. The building of an addition to the north wing of the College for the purposes of the Museum. 2. An endowment for the maintenance and management of the Museum. 3. The Museum to be open free to the public and to be placed on a somewhat similar footing to the North London Hospital—i.e., to be autonomous with due representation of the Council of University College on the Executive Committee of the Museum.

It is estimated that £30,000 is the sum that will be required to thus permanently establish the Museum as a national institution. Towards this, Mr. Thomas Twining, of Twickenham, had written to say that he would subscribe the sum of £100 if one hundred promises of a similar amount were obtained. Promises of subscriptions may be sent to the Curator at the Parkes Museum, University College, Gower-street. Subscriptions may be paid to the account of the Parkes Museum at the Union Bank, Argyll-place, Regent-street.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 4, 1882.

THE Royal College of Physicians of London would seem to be committed to a policy of isolation and self-destruction. One after another of its essential functions have been allowed to fall into abeyance till little more than the shadow of a name remains. Whether from the observance of excessive prudence, or from too jealous a regard for its fancied dignity, the College has long shown itself equally indisposed to exercise its ancient privileges, or to acquire fresh powers whereby it may better harmonise with the spirit of modern times. The latest display of "masterly inactivity" is to furbish the antiquated weapon of privilege, and to sally forth as a censor of the medical press. From a report given in another column it will be seen that, at a meeting of the Fellows held on the 26th ult., the President directed attention to the almost verbatim report which had appeared in some of the medical journals of the speeches made at the preceding meeting of the College, and expressed, for himself and others, the opinion that such a proceeding was calculated to prevent free discussion, and that the practice was contrary to all precedent and most undesirable. Those who welcomed the accession of Sir WILLIAM JENNER to the presidential chair of the College as a forerunner of a policy of enlightenment and progress will regret the irony of fate that made one, whose distinguished career has been, from first to last, a signal triumph of liberal principles, the mouthpiece of these obsolete arguments. It will readily be believed that Sir WILLIAM JENNER accepted the office of President with a desire to discharge its duties zealously and impartially, and with a single eye to the honour and best interests of the body of which he is the acknowledged head. With the numerous difficulties and embarrassments in his way his previous connexion with the College must have made him sufficiently familiar. It will augur ill for medical reform if the traditions of office prove too strong for his sturdy will. We would fain hope that there is yet time for him to throw off the mystic spell that has been so cunningly prepared for him. Meanwhile we are bound by the exigencies of public duty to challenge the position he has taken up. The question of privilege as regards the publication of the proceedings of the meetings of the College was believed to have been settled more than five years ago (see THE LANCET, Nov. 4th, 1876, p. 647). It may be remembered that in October, 1876, the Censors of the College prepared a report relative to a dispute between two of the Senior Fellows of the College. A copy of this report was submitted to each of these gentlemen. The Censors, however, agreed among themselves that the decision to which they had come should not be published and not even entered upon the Minutes of the College. Subsequently, and in consequence, chiefly, of the appearance of "garbled" accounts of the decision, the President (then Dr. RISDON BENNETT) announced at a meeting of the Fellows that if either of the Fellows specially interested desired it, he was of opinion that the report should be read. A long discussion ensued, and a motion "that, assuming the decision to be read, it should be regarded as a 'College secret,'" was put and negatived. A majority of the Fellows properly accepted the ruling of the Registrar, that none of the proceedings of the College may be regarded as *secreta Collegii* unless the College itself request that they should be so regarded. Then, as now, a small section of the Fellows, in defiance of a by-law to the contrary, endeavoured to make "College secrets" of all the proceedings of the meetings of Fellows. This by-law (No. 166) contains a clause designedly framed to throw upon the President the responsibility of specially defining on particular occasions whatever he might regard as unsuitable or undesirable for publication. "No Fellow of the College," it is stated, "shall divulge any of the proceedings of the meeting held for the election of Censors, or other College officers, or of Fellows or Members of the College; or of any meeting the proceedings of which he shall be required by the President to keep secret." This obviously implies that in the absence of a specific injunction from the President the proceedings of the meetings may be made known. This conclusion is further supported by the fact that a copy of the minutes of the meetings is suspended in the hall of the College. As no request was, we understand, made that they should be kept secret, there was no irregularity in the publication of the proceedings of the meeting referred to by the President. And considering that the occasion of this meeting was a recent scandal, and that the chief business to be transacted was to define the professional relations of the Fellows, Members, and Licentiates of the College to acknowledged homœopaths, a detailed publication of the proceedings was natural, desirable, and proper.

It is almost incredible that it should still be necessary to maintain and defend the right of the medical press to report and criticise the proceedings of an institution that assumes the character of a public tribunal for the adjudication of medical affairs. The Royal College of Physicians has laid down canons of professional ethics, has drawn up rules and regulations relating to the education of medical students and practitioners who may seek its diplomas, takes an important part in the discussion of medical politics, and sends a representative to the General Medical Council. To arrogate to itself these privileges, and to expect to be exempted from public control and criticism, is to display a lack of common sagacity and to manifest a disposition more in conformity with the age in which the College was founded than with the end of the nineteenth century. The attempts made to impose capricious and needless restrictions upon the medical press show the spirit of a COSMO or a PAUL IV. rather than the tolerant liberality of scientific men. What the late CORNEWALL LEWIS affirmed of the lay press in the year 1849 is equally applicable to the medical press. "At present," he says, "a censorship of the press, either for religious or other purposes, would not be submitted to by countries which enjoy a popular Government." It is difficult to believe that a majority of the Fellows of the Royal College of Physicians will prove to be so unmindful of the duty of good citizenship as to accept the exploded doctrine of privilege, or sanction the revival of the pernicious system of *secreta Collegii*.

WE intimated last week that in the early part of January the Royal Commission on the Medical Acts met for the consideration of a draft Report. This is a month since, and we have not heard as yet of any actual and accepted Report. Nevertheless, as Royal Commissions go, the amount of time wasted has not been much up to the present, and it is far more important that the Report be good and the recommendations thorough than that they should be produced by a given date. The Commission is the most important body of inquiry on medical arrangements that has met almost in the history of England. It represents not only the profession but the State, and includes perhaps the shrewdest Judge on the Bench. The Report of such a Commission on bodies so numerous, so old, so competitive, and in some cases so obstructive, must, if it is to be valuable, be deliberate and thorough. It will probably be the fault of the Commission itself if it is not decisive as to the future organisation of the profession and of its Examining Boards. A more important object could scarcely be set before men than the adaptation of medical bodies to the wants of the medical profession and to the larger wants of the State. To perfect the education of medical men, as well as the means by which it is tested, and to remove from examining bodies all suspicions of low motive and low work; to guarantee to the holders of all diplomas that these shall not be disparaged by odious comparisons; to secure that the great superintending Council of the profession shall worthily represent its experience, its wisdom, and its learning; and, finally, that the public, while free to take its medical advice whence it pleases, shall be secure against fraud and misrepresentation in vital matters and in urgent extremities of disease—these, surely, are objects worthy of the attention of the best intellects. While the work of the Commission should be thorough, and such as to give a fairly permanent form to the results it is intended to secure, it is equally clear that there should be no undue delay in the matter. It is quite certain that every student is in a state of disturbance as to the form which his examinations are to take, and that medical teachers and all the examining bodies of the country will wait for legislation before seriously adapting their arrangements to the circumstances of the time. It is quite true that the pressure of work on Parliament in the coming session is likely to be such as to leave little leisure for the consideration of questions which excite no party interest. But it seems to us that the essential elements of medical reform are so apparent that it will be the fault of the Commission itself if a measure is not prepared that will pass with the consent of all parties.

EVERYONE who has followed the interesting series of papers read before the Medical Society of London upon the Salicyl Treatment of Rheumatism, which by the courtesy of their authors have appeared in our columns during the past few weeks, cannot fail to have gleaned therefrom deductions of great practical value. That mode of treatment has been illustrated by large numbers of cases observed in various hospitals, so that we have had presented not merely a study of the effects of a drug upon a disease, but a natural history of rheumatism as modified by a drug—a far wider subject. It may be long before similar statistics, the compilation of which must have involved the expenditure of much time and labour, are presented to the profession, and on behalf of that profession we may express our gratitude to the Society that has been the means of eliciting these facts; for hitherto it has been too much the custom to deal with general impressions upon the efficacy of medicines—impressions which require the correction of well-considered statistics. Whatever may be said about the fallacies of statistics, owing to the innumerable individual variations that are introduced, they do ultimately govern our conceptions of disease, and the larger the figures dealt with the less does the individual element appear. We may perhaps with advantage recall a remark made by us on the occasion of Dr. GREENHOW'S well-known communication to the Clinical Society (one of the first attempts at statistical analysis of this subject) two years ago. After alluding to his conclusions, which were, on the whole, adverse to the use of the drugs, we said: "At any rate, it is incumbent on physicians to endeavour to submit these drugs to continued careful study, and not to rely upon mere *impressions*. Our own feeling is, and has long been, in favour of the salicylic treatment as compared with other methods; but had the facts at our disposal been as profoundly scrutinised as those of the President of the Clinical Society, the impression might have been found to be baseless after all." (THE LANCET, June 5th, 1880.) Such facts have now been accumulated on all sides, and that impression has been strengthened; whilst even Dr. GREENHOW'S facts have been made to speak, by Drs. FAGGE and MACLAGAN, in a reverse sense to what the author inferred from them. We may now, in taking leave of this subject, briefly discuss the main points raised in these papers, stating them only in general terms, and referring our readers to the papers themselves for the statistics, in which they abound.

There appears to be practically a unanimity on the point that the two leading features of acute rheumatism, the fever and articular affection, are more or less speedily mitigated by salicyl compounds, whether these be given in large or small doses. The valuable analyses compiled by Dr. I. OWEN showed but slight difference to obtain in this respect with different dosage, and practically no difference in the total duration of illness. This question of dose is, it seems to us, one of considerable importance, for it was here that most divergence was exhibited between the writers. It would be well for subsequent analyses to be directed to this point, in order to test the necessity urged by Dr. MACLAGAN and supported by Dr. BROADBENT, of giving full doses at short intervals at the commencement of treatment, in order to get the patient rapidly under the influence of the drug. So far as may be gathered from these papers, it does not matter much whether one adopts this plan or that of a less vigorous kind, and it may be, indeed, that where the remedy is pushed it may require to be withheld too soon, on account of the production of its toxic effects. Dr. MACLAGAN, however, acts on the principle that the more rapidly the system is saturated, the more likely will the remedy be to arrest the tendency to cardiac inflammation. Believing in its anti-rheumatic action, he therefore thinks that, given in time, the cardiac complications may be and are averted; and Dr. BROADBENT seems to be of the same opinion. Opposed to this we have the analysis made by Dr. GILBART SMITH, which showed that the percentage of cases with cardiac disease was even higher than in cases treated by other

remedies. Dr. FAGGE'S remarks on this point afford some explanation of this, for he not only referred to the fact that a large proportion of the cases the cardiac inflammation is present on admission, but stated what is perfectly true, that murmurs are not necessarily indicative of organic valvular disease. Something must be put down to the anæmia of rheumatism, and if, as some believe, salicylate of soda intensifies that anæmia, we may have an explanation of the occurrence of cardiac murmurs during its administration, without detracting from the anti-rheumatic properties of the drug.

The comparisons made by Drs. FAGGE, HOOD, and OWEN, of the statistics of rheumatic fever treated by this and other methods, all went to show that the treatment by salicyl was far superior to other methods. The remarkably rapid relief from the severe pain, so characteristic of the malady, could not, however, be given on such tables; but when we recall how frequent and necessary it was to give opiates (it was almost a routine practice), and contrast that with the present system, we must admit that the superiority of the salicyl treatment over other plans is more than can be measured. Dr. DOUGLAS POWELL related two striking examples of disease, which go far to support the belief that salicin is all that Dr. MACLAGAN claims for it. The cases of "rheumatic" phthisis and "rheumatic" meningitis cured by this remedy were among the most valuable contributions to the subject.

Much was of necessity said about "relapses," and if we can judge between the various speakers, we should say that some applied that term far more rigidly than others. In testing the efficacy of a drug, the definition of a "relapse" should, in our opinion, be as strict as possible. Of course, varieties of such relapse will occur, from a mild recurrence of pain, with or without pyrexia, to a definite multi-articular relapse, with free sweating, high temperature, and every indication of a renewed attack. Some, we fancy, have limited relapses to this latter well-marked variety, others have included far milder manifestations under that term. Do the salicyl compounds prevent relapses? or do they increase the tendency to them? It was clearly shown by many, and particularly by Dr. COUPLAND, who appears to have adopted a very rigid definition of relapse, that they may occur whilst the patient is taking the drug, although they mostly take place when its influence is withdrawn; and surely this shows that the drugs in some way or other do neutralise the rheumatic poison. There may be given at least two reasons for the seeming frequency of relapse in cases treated by salicyl. One is that the morbid process is not actually cut short, the disease is not cured straight off by saturating the patient with salicin. It is, however, neutralised, and if the drug be omitted, a so-called relapse occurs because the neutralising influence is withdrawn. The other—less hypothetical and well-recognised—cause is that owing to the apparent curtailment of the disease, the freedom from pain and fever, there is a withholding of the ordinary precautions in matters of diet, clothing, and rest, which do so much for the favourable course of rheumatism. Unless practitioners bear this in mind, they will constantly be disappointed, and by either leaving off the drug too soon, or prescribing solid food and exercise too early, will invite relapses, and throw discredit on the remedy. We believe also that occasionally the premature withdrawal of the drug, owing to its having been administered in toxic doses, accounts for some relapses. Individuals vary very much in respect to toleration of the drug; we know of healthy subjects who have taken with impunity doses literally enormous; and if (as Dr. POWELL pointed out) it happens to be not readily eliminated, the toxic effects are far more likely to show themselves. As a matter of common sense, we should have thought it more rational to ascertain how little of the drug may be given which can produce the remedial effects, and not how much can be tolerated.

We must, however, here allude to the remarkable fact that in this large body of cases comparatively few were mentioned as having exhibited alarming or dangerous symptoms due to the remedy. There are a few given of delirium and prostration, but no examples of the very grave, even fatal depression, as in some which have been previously recorded. For all that, it is pleasanter to give a remedy which shall be tolerated; and nothing came out in the facts related to show that the appearance of toxic symptoms was at all necessary to obtain the remedial effects. Dr. FOWLER'S statement of the immunity from toxic symptoms enjoyed by those who take the acid obtained from the oil of wintergreen, and not the artificial acid, points to the ill effects being due to impurities in the preparation of the latter; and if that be so it is likely that the diminution in "salicylism" of severe type is owing to the article supplied by the manufacturer being of a purer quality than formerly. Dr. MACLAGAN almost stood alone in his preference of salicin over salicylic acid, but we cannot help thinking that he has exaggerated the evil qualities of the latter. Certainly it is a fact that in hospital practice the salicylates have to a great extent displaced the more expensive salicin; not, to be sure, on the mere score of economy, but because physicians generally have not found the salt to be less efficacious or more noxious than the alkaloid, whether they accept SENATOR'S view of the changes undergone by the latter in the economy or not. Indeed some, perhaps rightly, attribute some virtue to the soda with which the acid is combined; and at St. George's Hospital, Dr. OWEN stated, the salt is combined with an excess of alkali with most excellent result.

COMMON-SENSE instincts are satisfied by the decision ultimately arrived at in the inquiry concerning the alleged and pretended insanity of GUITEAU. At the same time, it is impossible to regard without regret the methods and ways of legal procedure by which that decision has been reached. We are not now alluding to the sensational and perhaps scarcely creditable manner of conducting the trial. Let the obvious considerations suggested by that aspect of the case pass without comment. They are crowded out of sight, and will be forgotten by scientists, in view of the injurious effect which the hasty and *ad captandum* process of reasoning by which the end was finally secured must produce on public opinion in America, and probably also in England. We are thrown back upon, and, for some time at least, chained to, the axiom, that if a person doing any act which the law regards as an offence has sense enough to know that what he is doing is wrong in law, and that he is breaking the law in doing it, he is not insane. "If that be his condition, it is of no consequence that he acts under an

irresistible influence or an imaginary inspiration in committing the wrong." We are quoting from a summary of the charge given by Chief Justice DAVIS, of New York State, in a recent case of murder. And it follows, as this judge proceeded to point out, that, "Emotional insanity, impulsive insanity, inspirational insanity, insanity of the will or of the moral sense, all vanish into thin air whenever it appears that the accused knew the difference between right and wrong at the time and in respect of his act." Again, and as a necessary consequence, "There is no form of insanity known to the law as a shield for an act otherwise criminal, in which the faculties are so disordered or deranged that a man, though he perceives the moral quality of his acts as wrong, is unable to control them, and is urged by some mysterious pressure to the commission of the act, the consequences of which he anticipates and knows." It will at once be perceived that this drives us backward, and leaves us where we were at the commencement of the century; indeed, to a period much more remote than that. JOAN OF ARC would have fallen into the clutches of the executioner to-day, in spite of all that science has discovered with regard to the nature and causation of "voices" and visions. Practically, no doubt, the GUITEAU trial may make little if any difference to us on this side of the Atlantic. Our own judges have long been, and are, stone deaf to the monitions of science; but it is disquieting, not to say humiliating, to be told, in language so plain as this trial has used in addressing public opinion in all civilised countries, that law utterly rejects the teachings of modern science, and cannot and will not believe that any man who knows that he is doing what it has pronounced wrong can possibly be insane.

So far as the general situation goes, we may adopt the view propounded by Dr. BIGELOW in a paper which has just appeared in the *Medical Record* of New York. Science has suicidally cut the ground from under its own feet by committing itself to the premisses of a coarse and rigid materialism. Scientists assert that mind has, and can have, no existence without matter, and that all insanity is due to brain lesion; and then they complain because jurists refuse to believe in the insanity of persons who cannot be *shown* to have lesions of the brain. The position we are driven to take up in an emergency is simply untenable. We ask too much: we claim to be believed when we say there *must* be a physical cause for insanity, and we expect to be believed when we affirm the existence of insanity in a case where we cannot show a cause. Of course it is logically possible to conceive of a physical cause which cannot be demonstrated, but it must not be forgotten that the demand to be credited as judges both of fact and possibility is one with which the legal conscience of our censors is not likely to comply. Even the most advanced materialist in science must admit that the dogma which makes *all* insanity dependent on brain-lesion has greatly complicated the question of responsibility and embarrassed the position of the medical scientist in its discussion.

The sum of the proposition may be thus stated. How are we now to make it plain to the public that there are undoubtedly states or conditions of mental function in which the inter-relations of the faculties are so disturbed or destroyed that the mind is not its own master, and the will is in abeyance, or for the time enslaved? It was easy to speak of moral insanity so long as we were prepared to place the seat of the moral instinct somewhere in the background, behind matter. The existence of an unseen and undemonstrable spirit being assumed or conceded, madness which could not be easily traced to brain-lesion could be credited to the unseen spirit, and the hypothesis of moral insanity was recognised as a possible explanation of certain mysterious and otherwise inexplicable phenomena of mind and character. This hypothesis was in strict accord with the prevalent religious belief, and could be enforced with the sanction and authority of religion: "When I would do good, evil is present with me." Science has, however, discarded this view, and driven the world from the old stand-point. What position has it to offer in its place? We have given up the old lights; where are the new? This is how the practical question shapes itself. For ourselves, and tentatively of course, we must take this position, to which indeed the spirit, if not the letter, of the most recent lessons of science seems to point. Pathology, morbid anatomy, and physiology—in a laboratory sense—have done, and are at this moment doing, much for medicine as a science, and perhaps even more for it as an art; but they cannot do everything, and with the good they have done they have wrought some mischief. We are falling into the error of confounding effects with causes. When the scalpel and the microscope reveal coarse lesions, or histological changes, we—not unnaturally, but nevertheless wrongly—conclude that because the abnormal conditions, sclerosis, atrophy, or what not, which we discover are incompatible with a proper and healthy performance of function, it follows that these organic irregularities must needs have been important factors of disease. A moment's reflection should convince the investigator that it is even more likely that they are the *effects*, instead of having been the causes of the functional derangements with which they were associated. This may be scouted as loose doctrine in science, but we claim the right to form and pronounce an opinion, and to this opinion we hold. It is consistent with the principle of evolution—special function always preceding special organisation in development. The setting apart of an area of the organism for special work, and the growth of a particular apparatus or organ, is the *effect* of a force of necessity operating upon the organism from the environment. On the same principle, atrophy follows upon disuse. The proliferation of connective tissue to fill the interspaces left by the recession of special elements of an organ is a natural consequence of atrophy. The evidence of inflammatory and exudative processes is often misconstrued. In some of the most typical specimens of sclerosis, careful search will lead to the discovery of interspaces as yet unfilled, in which the atrophy of nerve cells or fibres has clearly occurred *in advance* of the proliferation we call sclerosis, and resulted from disuse in consequence of an arrest or cessation of activity, instead of having been produced by pressure. The moral of the story of the post-mortem room needs not be pointed. We must try back, and if it should, as a result of this trying back, be found that we have moved too rapidly on the lines of pure Materialism, scientists will do well and wisely to acknowledge the possibility of a fault underlying the superstructure of their previous hasty if not precipitate conclusions. For example, it may in the end come to be seen that the special and

localising view of brain function and disease is *not* the ultimate or whole truth; that the brain is an instrument which, though it commonly behaves as a barrel organ, may be made to discourse music or discord not wholly according to its own impressed and organised characteristics and of its own inner motive force, but at the will or caprice of an unseen player, and that such a player actually exists.

THE less that is known of disease—its nature, causes, and course—the more it is usually feared; and, on the other hand, the more that is known of it, the less need is there to fear it. This is eminently true of that group of diseases which attack lying-in women, and which have been included under the term Puerperal Fever. For a long time puerperal fever was regarded as a fever of a specific kind, which occurred now and then in an epidemic as well as in a sporadic form, arising from and subject to epidemic and atmospheric influences, and it was held accordingly in dread by the physician practising obstetric medicine. The picture of it drawn by the late Dr. TYLER SMITH is well known; how it tracked the footsteps of one practitioner as if it were his own shadow, while it treated his neighbour with welcome neglect. Since the time Dr. SMITH'S article was written, however, much has been learnt of the causes and habits of this scourge of lying-in women, and we have ceased to regard it as the terrible and mysterious foe which it was depicted not many years ago. It is known now to be, not a specific fever, caused by a specific poison, but a group of diseases, in so far as local lesions go, arising from a poison introduced into the body from without, or generated within the system. These poisons are the production of the decomposition of organic material, and are apparently far more under control than the specific poisons of the acute specific fevers; for if introduced from without, they must be, to be productive of mischief, inoculated into the system, while if generated within the lacerated genital passage after parturition, they are in a position the most favourable for their absorption, and for infection of the system. While the poison of puerperal fever is effective only when inoculated, that of the specific fevers is effective when inhaled as well as when inoculated. Puerperal fever is, indeed, septicæmia in a lying-in woman. These remarks are made *à propos* of a case which occurred at Woolloongabba, Australia, in October last. From the report in the *Brisbane Courier* it appears that Dr. JOSEPH, of Brisbane, was called to see a Mrs. MEE the day after her confinement, and that he found her suffering from puerperal peritonitis. She had been attended in her confinement by a nurse named FLOOD. Mrs. MEE died on Sept. 28th. The doctor also attended a Mrs. MORRIS, who died of puerperal septicæmia on Sept. 30th. The date of attendance on Mrs. MORRIS is not given in the evidence, and the case against Dr. JOSEPH completely broke down. Some of the evidence given at the trial was of a very extraordinary character and entirely misleading. One witness, Dr. THOMSON, who made the post-mortem examination, stated that he "found the cause of death to be puerperal septicæmia or puerperal blood poison: that disease was highly contagious. ..... Had not had much experience in puerperal fever cases. It was fifteen years since he had seen a case. Had paid very little attention to this subject beyond what could be found in text-books." This authority—learned without experience—"believed that puerperal fever did not arise spontaneously; that there must be a contagious germ from outside to communicate the poison. Did not believe that decomposition was set up by any internal action; the autogenetic theory was entirely due to the ignorance of the profession in the matter." It is hardly possible that anyone who had received a scientific training could have seriously given such evidence on a subject which has been so fully discussed during the last few years, except indeed, in forming his opinions, he had recourse to a method other than the scientific. The Court seems to have taken this view of the matter, for it wisely discounted the evidence of this witness, and suggested that unless other evidence was forthcoming, it would be useless to go on with the case. Another witness stated that puerperal peritonitis was highly contagious, a statement which is to the public entirely misleading, and certain to convey an erroneous impression. We have already pointed out that puerperal peritonitis is not contagious in the ordinary acceptation of the term, and that it is communicable by inoculation only. This witness further stated that "it was not the custom in the medical profession for a doctor to attend an accouchement while attending a case of puerperal peritonitis, or immediately afterwards," a statement which is wholly inaccurate, for it is the belief of the best authorities, almost without exception, that precautions may be taken that make it perfectly safe for the obstetrician to continue midwifery practice whilst attending cases of puerperal peritonitis. A surgeon does not cease operating because he has had a case of pyæmia or septicæmia in his practice, nor do we see any reason for the obstetrician to cease from practice because he has had a case of septicæmia amongst his patients, although it behoves him to observe that disinfecting cleanliness which is at all times obligatory upon him.

IT promises well for a man's place in history when the event of his death dwindles in importance compared with the event of his life. It is so with Sir ROBERT CHRISTISON. Though till a month ago he was in tolerable health, and only last year, at the age of eighty-four, achieved the ascent of Ben Nevis, and gathered materials for a paper to be read at the Royal Society of Edinburgh in December, he did not hide from others or himself that he was conscious of some diminution of power, much accentuated about the middle of the year by a curious and painful attack of rheumatism of the abdominal muscles. On the ground of this sense of failure, he declined, with much feeling, many pressing invitations to London during the Congress, and one in particular, that of the chair at the August dinner of the Edinburgh Graduates' Club. No one can regret that a life so youthful, so fruitful, and so honourable has been ended in its eighty-fifth year, and without any prolonged period of disability or pain.

Out of the ecclesiastical sphere it would be difficult to name a person who has been so much of a personage in Edinburgh any time during the last fifty years as Sir ROBERT CHRISTISON. Of late years he has seemed to students, who have always regarded him with mingled awe and admiration, as the youngest old man they ever saw; but those who were his pupils fifty years since reverse the remark, and say he was then the oldest young man they

ever knew. There was, in truth, in him a strange mixture of the old and the new, the conservative and the progressive elements. One of the most important acts of his later life was to give evidence before the Royal Commissioners to inquire into the Universities of Scotland, and he there displayed his conservatism in his notions of general education, coupled with a very fresh and clear insight into the drift of modern therapeutical science as it was developing in the hands of his own successor in the chair of Materia Medica, and other fellow-labourers. But there was a limit to his admission of the modern light in therapeutics, which was shown strikingly a quarter of a century since, or more, when he explained, with his illustrious colleague ALISON, the successful treatment of pneumonia by BENNETT and others without large bleedings by the theory that the type of disease itself has changed. We are not aware that he ever gave up his view of the altered treatment. In his own person he had wonderful experience of fevers and of their early treatment by depletion. It is not the least testimony to his magnificent constitution that he survived an attack of most of the Fevers on which he wrote so well, and two bleedings, respectively thirty and twenty ounces, in quick succession. In University and medical politics, as well as in general politics, Professor CHRISTISON had been a most powerful factor up till a very recent period. His knowledge of educational questions and of questions affecting medical education was minute. His conservatism—which, in general politics, was very pronounced—once relaxed so far as to allow himself in the General Medical Council to vote for a conjoint scheme of medical examination in each division of the kingdom. But this relaxation was only temporary, and he withdrew his help from those who labour for this urgent reform. In doing so he took all Scotland with him for the time being, though we imagine his views on this subject will soon seem as indefensible as his views on change of type in disease. But though in some matters we were opposed to Sir ROBERT CHRISTISON, we yield to none in respect for his character. His large experience of human life and disease, under other political and social conditions, and under a less advanced medical science, than we enjoy; his accomplishments and thoroughness of knowledge; his belief in the institutions of his country, from the High School to the Kirk and the University, and at the same time his readiness to repair to Paris or to St. Bartholomew's for lessons which he could not get at home; the strength of his patriotism; his dignity of bearing, his classical speech, and, last, not least, his juvenile old age, his buoyant and elastic step, his erect head and his piercing eye,—command our admiration. There seemed a mutual respect between lawyers and Sir ROBERT CHRISTISON. Few great medico-legal cases passed in the fifty-five years of his professoriate without his opinion being taken and having weight. And it would be well for the profession if all its representatives could acquit themselves in the witness-box as he did. In the list of medical Baronets none can be found more worthy of the honour than he—an honour which came without any seeking of his, through the present Premier, a political opponent. But men like Sir ROBERT CHRISTISON belong to the nation, and advance its fame in the estimation of the other nations of the world.

Annotations.

"Ne quid nimis."

THE PRELIMINARY SCIENTIFIC M.B. EXAMINATION.

WE understand that the recent decision of the Senate of the University of London with reference to the above examination was only arrived at after prolonged and careful investigation. It was further much influenced by the presentation of a memorial signed by leading science teachers and professors pointing out difficulties in the way of conducting the examination twice a year. One great argument was that sufficient time would not be allowed to candidates to pursue the whole courses of the subjects required; but to that a ready answer might be given in the fact that at very many medical schools special classes for the July examination do not commence until January. Another reason was the impossibility under prevailing academical arrangements of holding classes of sufficient length of time to prepare for an examination held in January or February. It would disarrange the whole academical year, and give no rest to teachers and students in the summer vacation. To this it might be replied that it is a lesser evil compared with the hardship entailed on candidates who matriculate in January, and that it is met in other universities—e.g., Cambridge—by the holding of vacation classes. Supposing that a January examination had been instituted, it would be sought after by two sets of candidates—viz., those who matriculate in the previous January and those who have been rejected in the previous July. Perhaps even greater benefit would accrue from holding the examinations in March and October, so as to encourage candidates to pass just before entering at a medical school. Other difficulties of a practical kind—by no means insuperable—were also adduced, and these arguments, together with the lack of any combined action on the part of the medical schools, or of the medical members of the Senate, determined that body to disregard the proposal of Convocation and to institute the change which we commented upon last week. It remains to be seen how this change will work.

NAVAL MEDICAL DEPARTMENT.

WE fear that the hope which was entertained that the Warrant promulgated last year for the regulation of the Naval Medical Service would remove the discontent which notoriously existed in it is not likely to be realised. We have seen with regret in some of our military contemporaries statements which, if correct, would account for the revival of those feelings which, reacting upon the medical schools, checked the flow of candidates and reduced the Department to a condition which Mr. Trevelyan truly described as very unsatisfactory. It is stated in the *Army and Navy Gazette* that the vacancy in the office of the Director-General consequent upon the appointment of Deputy Inspector-General Dick to the hospital at Malta, has been conferred upon Fleet-Surgeon Lloyd. If, as is implied in the statement by our contemporary, this post is to be held by him with his present rank, it will be a serious injury to the Department, because it will deprive it of one of the not very numerous administrative promotions to which its officers may look forward, while if it is intended to promote Surgeon Lloyd to the rank of Deputy-Inspector, such a course will give rise to much discontent, as he is a junior Fleet-Surgeon and would thus be put over the heads of many of his seniors, among whom there surely must be some eligible for such an appointment and well qualified to fulfil its duties. The system of promotion to the administrative ranks by selection is almost a necessity in the public service, seeing the evils which have resulted from the hard-and-fast rule of

seniority, but such selection should be made on good grounds, and these should be publicly stated with a view to remove the natural imputation of favouritism, not merit, being the moving cause. The Medical Department of the Navy has unfortunately been too open to such a charge; and it was hoped and believed that under the present Director-General and with the new Warrant a marked change in this particular would be realised. We trust that Dr. Reid will be able to show that there is no intention to reduce the rank of his assistant in the office, nor to make an appointment which could not fail to raise a very strong feeling against him in the Department over which he presides. A very serious objection to the appointment of a Fleet-Surgeon instead of a Deputy-Inspector as assistant in the office of the Director-General would be that, in the absence of the latter, he would be the representative of the Department and might often be placed in a position of considerable difficulty in dealing with questions affecting the interests of officers his superiors in rank and his seniors in the service. At the last examination for admission into the Department there was, as a result of the new Warrant, a fair addition to the number of candidates, which we have reason to believe will be kept up at that which is to be held on the 20th inst.; but a few more instances of disregard of the claims and of departure from the acknowledged rules of the service will soon bring back the unsatisfactory condition from which it is but just emerging. We believe Mr. Trevelyan to be animated by a sincere desire to place and to keep this branch of the Navy on an efficient and satisfactory footing, but we would warn him that, unless he adopts measures to ensure fair play and adherence to the regulations laid down for its administration, he will fail to realise those anticipations which he brought so ably and so clearly before the House when the subject was under discussion last year.

DR. RICHARDSON ON SLAUGHTER-HOUSE REFORM AND PAINLESS METHODS OF KILLING.

AT a meeting held in the rooms of the Royal Society for the Prevention of Cruelty to Animals, on Saturday last, it was proposed to deal with one of the most important sanitary questions of the day—viz., the improvement of slaughter-houses and the introduction of more scientific methods of slaughtering. The meeting, over which Dr. Richardson presided, was influentially represented and well attended, and, as the scope and intention of it are definite, the Society (into which the meeting resolved itself) promises to perform a most useful national work. The objects for which the Society is established are to secure the following advantages: Public slaughter-houses; efficient inspection; establishment of a model abattoir; proper training of slaughtermen; and a uniform, effective, and humane system of slaughtering. The chairman, in his address, enumerated all these points, and drew attention to the following details, which, in his opinion, ought to be effectively supplied: Abundant light, perfect drainage, complete removal of offal, pure water for dressing carcases, good lavatories for the workmen, a regular system of time for slaughtering and dressing, clean and comfortable sheds for the cattle waiting to be killed, clean and properly arranged rooms for the preservation of the flesh after dressing, and an efficient, skilled inspection of the flesh before it is sent out for human food—an inspection such as that which has for centuries been so beneficially carried out by the Jewish people. In addition to these details the chairman dwelt on the present modes of slaughtering, and described, from personal observation, the irregularities and defects which exist at the present time. Referring to his own original experiments on the process of painless killing of animals made in 1869, he expressed that such painless killing, in the present state of science, could easily be brought to such perfection that the animal being killed would have no sense of pain whatever. Animals which he had killed by the electric shock were stricken instantaneously into insensibility, and other animals which he had subjected to rapid anæsthesia by carbonic oxide were rendered insensible with almost equal rapidity; while the mode of killing oxen by the Bruno system, practically pole-axing through a mask, was, when effectively done, equally instantaneous. All these methods of killing were without any bad effect upon the flesh as food, and it had to be learned which was the best for different classes of animals. But no such test could be applied, no advance could be made at all, until the advantages resulting from a properly constructed abattoir opened the way. The meeting now being held was called to test if the public were ready to back up the effort proposed. It was not wished to establish a Society which should last for a long period of time. What was wanted was the means to establish in the metropolis one model abattoir, and to set that in action by obtaining the assistance of several butchers who were quite ready to take their share in promoting the improvement. After a standard of this kind had been established, it would be necessary for the Society, backed by public sentiment, to apply to the Government to enact a law that should make such improvement a sanitary statute. The arguments put forward by Dr. Richardson, and strongly supported by Professor Fleming, Mr. Colam, Mr. Flower, and other speakers, were followed by a unanimous resolution constituting the new Society, to the funds of which about £100 was at once contributed. We need hardly say that we wish this important project every possible success; and we trust that our readers will join with us in trying to make that success complete.

INFECTIOUS MOULDS.

A LIVELY controversy has been carried on in Germany on the subject of the pathogenic properties of a common mould-fungus, and to the discussion an addition has recently been made in France by Kaufmann, who has investigated the subject in Chauveau's laboratory at Lyons. As long ago as 1869 Grohe and Block produced in rabbits a fatal disease by injecting into their veins the spores of two common moulds, penicillium glaucum and aspergillus glaucus. The spores became arrested in certain parenchymatous organs, as the kidneys, liver, and lungs, and grew there, giving rise thus to "foci of vegetation," which killed the animals in three or four days. Grawitz repeated the experiments, but neither he nor Cohnheim could obtain any positive results, and they doubted very much the correctness of the previous conclusions. In 1880, however, Grawitz experimented by successive cultivation of these spores, in the endeavour to acclimatise them to such a soil as the blood. He stated that the mould growing on bread is innocuous, but by cultivation in media gradually increasing in fluidity and lessening in acidity, he succeeded in developing considerable virulence. The initial form of penicillium is unsuited to an alkaline liquid, and if sown in it, is quickly choked by an abundant growth of vibrios. After, however, the serial cultivation has adapted the spores to the alkalinity, either they or the spores of aspergillus glaucus grow freely and hinder the development of the vibrios of putrefaction. By injecting small quantities of the acclimatised spores, or larger quantities of those which are imperfectly adapted to live in the blood, he alleges that he has produced a trifling malady and conferred immunity against the more active virus. Koch, however, has denied the innocuity of the original form of aspergillus glaucus, and asserts that Grawitz really experimented not with A. glaucus but with A. niger, the latter being always inoffensive, the former always virulent. In a mixed

growth the former gradually preponderates, and after a series of cultures may exist alone, and hence, it is suggested, the results obtained. Löffler was unable to corroborate the alleged immunity obtained by inoculation. He injected small quantities of the spores of aspergillus glaucus into three rabbits, of which two survived, and three weeks afterwards were quickly killed by a fresh injection. The assertions of Koch and Löffler have been indignantly denied by Grawitz, but they are confirmed by the results obtained by Kaufmann. He finds that the aspergillus glaucus grown upon bread causes death when injected into a rabbit, even in so small a quantity as one-tenth of a milligramme, and that its previous adaptation to a liquid and alkaline medium, and to the temperature of the animal body, is quite unessential for its infective property. If such adaptation has any influence, it only very slightly increases its virulence. He also finds that spores exposed to the ordinary temperature of the air for six months do not, in any degree, lose their pathogenic power.

THAMES OUTFALLS.

A VERY important report has been presented by the Port of London Sanitary Authority to the Common Council, on the sanitary condition of the river Thames in the neighbourhood of Crossness and other sewage outfalls. A sub-committee of eighteen members of the authority was appointed to make the inquiry, and take samples of the water of the stream at the points referred to, and in their report, now made public, they say that, "In the minds of your committee there can be no doubt that the action of the Metropolitan Board of Works, under the Metropolitan Local Management Act, in taking the sewage of the metropolis down the river to Crossness and Barking Creek, has materially benefited that part of the Thames immediately adjacent to London, but, equally without doubt, the state of the river at these points, although being greatly affected by constant meteorological changes, which must of necessity vary from time to time, is, in consequence of the great outpouring of sewage, always in a condition most insanitary, and that in hot weather, in times of drought and great heat, its very prejudicial effect upon the public health is obvious; and bearing in mind the fact that the quantity of sewage has of late years enormously increased, and is constantly increasing, your committee feel that the time has arrived when some definite action should be taken in the matter, and therefore, after full consideration, deem it expedient that the Corporation should avail itself of the step which by the Metropolis Local Management Act, 1858, cap. 104, sec. 31, appears open for it to adopt,"—namely, appeal to one of Her Majesty's principal Secretaries of State to make inquiry into the subject, and take such proceedings as he may think fit. The sub-committee of the Port Sanitary Authority made their inspection below stream, as low as Gravesend, on Nov. 23rd, and above stream, as high as Teddington Lock, on Dec. 3rd, collecting samples of the river water on the way, and committing them for chemical analysis to their medical officer, Dr. Collingridge, with the assistance of Professor Wanklyn. A report by Dr. Collingridge on the subject of inquiry, together with the results of the analyses made by Professor Wanklyn and himself, is appended to the Port Sanitary Authority's report. Confining our observations to the outfalls at Barking and Crossness, and comparing the somewhat bold and wide deductions of the Port Sanitary Authority with the chemical evidence deduced, we are surprised at their disproportion. The amount of assumed sewage found in the river water off the Barking and Crossness outfalls renders it probable that the sewage was still *in flow* when the samples were taken—an inference justified by the fact that the sub-committee only made one visit down the river. This kind of proceeding was adopted a short time ago by a riparian authority, although it could give no information as to the normal condition of the river. And it is remarkable that no information is given of the circumstances under which the samples were collected or of the manner—particulars essential to be known in matters of this kind. Another remarkable fact is that this report gives no information whatever of the "very prejudicial effect on public health," which the Sanitary Authority states to be "obvious." The most important and useful point in the report consists in a table showing the amount of sewage discharged at the Barking and Crossness outfalls from 1869 to 1878 inclusive. In 1869 the quantity discharged at Crossness was 17,574,292,274 (gallons or tons is not stated); at Barking 12,793,513,197. In 1878 the quantity discharged at Crossness was 27,317,832,594; at Barking 30,177,765,147. At this rate of increase, what is the probable future of the river at the two points? Will some engineer enlighten the metropolitan population on this question; or is the sewage capacity of the stream below Barking and Crossness to be deemed illimitable?

PHOSPHORUS AND ARSENIC POISONING.

AN interesting series of researches on the pathological changes produced by phosphorus and arsenic poisoning have been communicated to the Société de Biologie by MM. Cornil and Brault. The quantity of phosphorus was equivalent to that contained in four or five matches, or to five centigrammes of arsenious acid. Guinea-pigs to which this dose was given daily lived for four or five days, passing arsenious acid by the bowel and kidneys. The object of the investigation as regards the liver was to discover the seat of the initial lesions, and their mode of extension in the hepatic lobule. The normal liver cells, treated with osmic acid, are limited by a delicate membrane, which presents a double contour, and in the middle of the cavity is a nucleus, which is connected with the capsule by a delicate protoplasmic filament. Six hours after the ingestion of the first dose of phosphorus the hepatic cells, which are situated at the periphery of the lobule, near the branches of the portal vein, are increased in size; their protoplasm is, as it were, liquefied, and contains albuminous granules and some fine fatty granules. This lesion gradually increases, but remains limited to the periphery of the lobule, until, at the end of twenty-four hours, the cells there are large and distended by albuminous and fatty granules and globules, while those in the centre are almost unchanged, and two or three days after the commencement of the poisoning the dilated cells constitute a sort of reticulated zone in the periphery of the lobule, and the delicate septum which separates two adjacent cells may break down, so that their cavities become united. The biliary canals present no alteration, even catarrhal inflammation being absent. In arsenical poisoning the change in the liver presents an important difference. The fatty degeneration is less intense than in phosphorus poisoning; but, instead of being confined to the peripheral zone of cells, it is uniformly distributed throughout the lobule. The lesions in the lung produced by the two agents are identical, and consist in a primary fatty degeneration of the epithelial cells of the alveoli; they become large and prominent, filled with granules and driplets of fat, their nuclei being preserved. The cells ultimately become detached, and fall into the alveoli, where they are mingled with an exudation which contains many blood-corpuscles. The change is less constant in poisoning by phosphorus than by arsenic. The resulting exposure of the vessels seems to afford an explanation of the congestions and ecchymoses which are met with in the lung. Partial pulmonary lymphangitis was also found after death from arsenic. The lesions in the kidney are the same as those which have been before described. The epithelial cells of the con-

voluted tubes are swollen, and contain conspicuous fatty granules a few hours after the commencement of the intoxication. The cavity of the tubules also contains an exudation which is coloured by osmic acid. In cases of longer duration the fatty globules are larger, and the epithelial cells, instead of being sharply separated, are reduced to a uniform mass, more or less filling the tubules. In other organs fatty degeneration of the endothelium of the vessels was also found.

THE CHARGE OF CONSPIRACY AT SUNDERLAND

DR. ABRATH has not only been acquitted, but the foreman of the jury wished to express their opinion that Dr. Abrath left the court without a stain upon his character. On arriving at Sunderland upwards of a thousand persons were assembled, who cheered tremendously. The North Eastern Railway Company thought to get a verdict against Dr. Abrath, and they have procured him an ovation and done what they could to make him the most popular medical man in Sunderland. It is undoubtedly desirable that when a railway company is treated dishonestly it should be protected, and where the still more rare thing is found, of a medical practitioner conspiring with a poor man to make capital out of a slight accident, it is most devoutly to be wished that he should be punished and degraded from a professional position which he has so much prostituted. But, on the other hand, it can only be regarded as an indiscretion of the first order to bring such accusations on insufficient evidence, out of the mouths of witnesses who have no credibility, and who, for the nonce, happen to be in the pay of the railway company, depending on their palpably improbable and finally discredited testimony. The indiscretion was the greater in this case, where the medical evidence was so defective, and, such as it was, was so contradicted by medical testimony, to say the least, equally authoritative. Dr. Abrath was entitled to be believed in his view of an injury, especially when it was shared by such men as Dr. George Yeoman Heath and Dr. Philipson; or, if not believed, he was certainly entitled to be held protected from criminal prosecution to which he has been subjected. By this unfortunate, ill-advised, and ill-conducted action the North-Eastern Railway has gained no advantage, and has done little to secure in future the deliberate and dignified investigation of railway injuries.

MECHANICAL EXCITATION OF THE OPTIC NERVE.

IT is commonly believed that, like most other nerves, the optic is sensitive to mechanical stimulation, that thus sensations of light may be excited, just as they are by a similar stimulation of the retinal elements. The question has been recently re-examined by Schmidt-Rimpler, who comes to the conclusion that the current opinion is true, although the grounds on which it is based are not altogether correct. It is usually asserted that division of the nerve in enucleation of the eyeball causes a sensation of light. The fact is, however, doubtful. Rothmund, of Munich, has several times extirpated an eyeball without anæsthetics, and has never known the division of the nerve to cause a sensation of light. It is probable, however, that in many such cases the fibres of the nerve are totally degenerated. A more conclusive instance has been met with by Schmidt-Rimpler. A large part of the contents of one orbit had to be removed on account of epithelioma. The eyeball was healthy, and vision with it considerable, but it could not be saved. The patient was perfectly conscious when the nerve was divided, and was asked if he experienced any sensation of light, but replied in the negative. It is suggested that the supposed stimulation of the nerve on division was really a stimulation of the retina in consequence of the tension of the globe by its necessary fixation at the moment of division of the nerve. Another fact which has been advanced as proof that the optic nerve is sensitive to mechanical stimulation, is the sensation of light which may be produced by extreme lateral movements of the eyeball. It has been referred to the stretching of some of the fibres of the optic nerve. But Schmidt-Rimpler points out that the sensation thus produced is that of a circle of light with a dark centre, and that its apparent position corresponds nearly to the point of entrance of the optic nerve. It is difficult to conceive that the fibres which end near the disc have a course so separate from others that they are only stimulated when the nerve is stretched. It is more probable that the phenomenon is due to extension of the sheath of the optic nerve, which pulls upon the sclerotic around the entrance of the optic nerve, and so stimulates the retinal elements. The absence of reaction on division of the nerve does not, however, exclude altogether its mechanical sensibility, since other nerves, motor and sensory, which certainly possess this sensibility, may not react if quickly divided. That sensations of light may be produced by mechanical irritation of the nerve is shown by some observations made by Schmidt-Rimpler on persons from whom an eye had been removed not long before. A blunt instrument was pressed against that part of the orbit in which the stump of the nerve was situated. The observations were made in a room almost completely dark. Of six persons, in two pressure on this spot always caused a flash of light on the side of the enucleated eye. One of them averred that the sensation exactly resembled that which he had before experienced when the eyeball was galvanised. The same patients experienced a similar sensation when the stump of the nerve was galvanised. The negative result in other cases may be explained by more complete atrophy of the nerve, or greater retraction of the stump. These positive observations seem to establish conclusively the mechanical excitability of the optic nerve.

MEDICAL CERTIFICATES OF STILL-BIRTH.

ONE of the most important provisions of the Births and Deaths Registration Act of 1874 was that which enacted, in Section 18, that "a person shall not wilfully bury, or procure to be buried, the body of any deceased child as if it were still-born." In order to secure the carrying out of this provision this clause declares that the body of a child shall not be buried as still-born without the production to the burial-ground authority of a certificate signed "by a registered medical practitioner who was in attendance at the birth, or has examined the body of such child." Failing such certificate, the clause provides that a declaration must be produced, "signed by some person who would, if the child had been born alive, have been required by this Act to give information concerning the birth, to the effect that no registered medical practitioner was present at the birth, or that this certificate cannot be obtained, and that the child was not born alive." It has often been asserted by those interested in "infant life preservation," and in the accuracy of civil registration, that these provisions are frequently evaded, and that a considerable number of live-born infants are buried as still-born, and thus escape registration. The prosecution, therefore, of a medical practitioner at the Lambeth police court on Tuesday last "for having unlawfully and wilfully made a false statement as to a child born alive having been still-born, and given a false certificate under and for the purposes of the Births and Deaths Registration Act of 1874," is important as evidence that this assertion is not entirely unfounded. The prosecution was instituted under the direction of the Registrar-General, and will be doubtless useful in calling attention to the serious consequences involved

in recklessly giving still-birth certificates to save needy patients' burial fees, or to facilitate the secret burial of infants in cases in which it is sought for any purpose to avoid the publicity of registration. It was proved in this case that the infant lived thirty-four hours, and as the defendant stated that he had been in practice for twenty-one years, and had had experience in some 3000 confinements, his plea that "he had not the slightest idea when writing the certificate that he was doing an illegal or unusual act" is the more unaccountable. If, as asserted by the defendant, a similar ignorance of the existence of this clause of the Births and Deaths Registration Act prevails among ever so small a proportion of medical practitioners, the result of this prosecution cannot be too widely known.

THE WRONG BODY SENT FOR DISSECTION.

WHAT is called a "scandal" has been caused at Sheffield by a mistake on the part of the workhouse authorities, who, it would seem, sent the body of a young man, claimed by his friends, to the medical school for dissection, in place of the unclaimed body of an aged and friendless pauper. Those who know the slipshod way in which the ordinary business of a workhouse is conducted, will readily understand how such a mistake may at any moment occur, without intentional mixing of the labels placed on corpses by a discharged attendant. It was a petty and purposeless revenge, if this is the real explanation of the occurrence. In any case the medical school officials were not to blame for the sentimental inconvenience ensuing from the misadventure. As a matter of fact, the body had not been dissected before the mistake was discovered, but it might have been, and no reflection could have been cast on the teachers of anatomy. An endeavour has been made to found a charge of irregularities of practice on the facts of this case, but the attempt fails completely. The school authorities are bound under the Anatomy Act to forward the certificates of burial to the office in London. If the guardians desire duplicate certificates, it is for them to make special arrangements to that effect with the undertakers. The officials at the medical school have nothing whatever to do with that business. They simply claim the bodies not claimed by friends, and with the legal use and disposal of the corpses so delivered to them, their responsibility must be understood to cease.

NEPHRO-LITHOTOMY.

THE cases of nephro-lithotomy read and discussed at the last meeting of the Clinical Society form an important addition to the rapidly growing list of operations performed on the kidney. The prognosis of a calculus in the kidney has up to the present been by no means cheering. With or without severe colic, some of the smaller concretions pass into the bladder, and, if the patient be fortunate, out of the bladder by the urethra; but a large number form the nuclei of vesical calculi; others, remaining in the kidney, are a source of more or less severe hæmorrhage, and later of suppuration and gradual destruction of the kidney, which in a few rare cases is relieved by the bursting of the pus externally, and the escape or ready removal of the offending calculus through the sinus. The cases of nephro-lithotomy at present recorded demonstrate that it is possible to remove calculi from the kidney through an incision in the loin; that when the organ has been exposed it may be explored by acupuncture, without fear of mischief ensuing; that an incision into the glandular substance does not notably increase the danger of the simple exploratory operation; that the operation is not followed by permanent urinary fistula; and, further, that here are cases in which the operation cannot be performed, or must be replaced by removal of the entire organ. It seems important to remember that it is unnecessary and impossible to remove all renal calculi by operation. Some can be so acted on by solvents as to be readily passed *per vias naturales*. And in cases where the stone has set up destructive processes in and around the gland, and also where the stone is of large size, removal of the kidney appears to be the suitable procedure. A very large calculus cannot be removed through the loin, and in such cases as we have mentioned, even if it were practicable, the kidney is so diseased that its recovery and the healing of the wound are impossible. The danger which confronts this, as all other successful operations, is that surgeons may be tempted to perform it empirically.

HOMES FOR CONVALESCENTS.

EVERY hospital should have a branch establishment specially set apart for the purposes of a convalescent home. It is most undesirable that the sick—and especially the sick poor, who for the most part require to work with their hands and under trying physical conditions for their daily bread—should be sent back directly from the wards of an hospital to the busy and rough world. It would be sound economical policy to give the convalescent an opportunity for complete recovery in the wards of a special institution before turning him out into the struggling crowd. It cannot be gainsaid that many otherwise recoverable cases are rendered generally incurable by premature discharge. As between remaining in a hospital longer than is necessary and returning to their own homes, the sick may appear to gain by prompt dismissal; but an element of mischief creeps into the calculation and vitiates the result when the still weakly in mind or body—often in both—are compelled or encouraged to resume their labours and the exposure of out-door work before they have accumulated a sufficient stock of physical strength and mental energy. This untimely return to work is the factor which discounts the value of our "cures" and multiplies *relapses*. If every hospital had its "home" for perfect recovery in some suitable locality, perhaps a few miles distant in the country or at the seaside, the sum of the good work done by these institutions would reach a higher total, and produce manifestly more lasting results than are attainable without such a provision for thorough cure.

THE CASE OF ASSAULT AT FRIMLEY.

THE recent case tried in the Court of Queen's Bench, in which an apprentice was found in the bedroom and under the bed of his master's children, and then removed to his own room, where he either had, or pretended to have, a fit, calls for some serious comment. Human nature is a very curious thing, and gets thrown into very violent emotions from all sorts of causes. When these emotions exceed a certain point and become morbid they are apt to excite the fear of onlookers, and the doctor is called in. He is the wisest doctor who can most quickly and soundly decide whether the commotion is one that may be left to social authorities, or has passed the bounds at which medical art and assistance may be applied with advantage to the patient and without loss of dignity to himself. The medical adviser of a family is often placed in very delicate circumstances, and tempted to take sides in disputes with which, if he is wise, he will with firm kindness ask to be excused from interfering. It is quite true that many of the cases that come under the notice of the family practitioner, and even some of the serious ones, have social bearings of which he ought to be told, and without a knowledge of which he cannot rightly either judge the case or treat the patient. But even in such cases he will not readily obtrude himself or his knowledge of social facts and circumstances confidentially com-

municated to him. In a large class of cases he will do well to consider whether he has any good right to interfere. Where he cannot help taking a part, it should be one of dignity and kindness, with as much consideration for both sides as the case will admit of. He should occupy a sort of judicial position. We are sure that these are the principles on which medical men in general act, and by acting on which they command the confidence and respect of the public, and even of divided families. We are led to these reflections, as we have said, by the painful case of assault at Frimley just decided in the Queen's Bench Division of the High Court of Justice. Some may justify the surgeon's interference by saying that he was sent for in his professional capacity to determine whether the boy was in a fit or not. But his own account of the case warrants us in believing that he did not take a serious view of the boy's condition. He thought it one to be treated by "horsewhipping" or ducking under a pump. In these circumstances it is to be regretted that he did not leave the apprentice to his master, with a word of caution against over-severity, instead of resorting to an instrument which may be justified for purposes of cure, but is beyond all justification for purposes of correction or diagnosis.

HOMŒOPATHY AND THE BRITISH MEDICAL ASSOCIATION.

THE South-Western Branch of the British Medical Association does not, apparently, intend to allow the question of the relations existing between homœopathic practitioners and the association to remain in its present unsatisfactory state. The subjoined resolutions were passed unanimously at the last quarterly meeting of the branch, held at Plymouth on December 31st, under the presidency of Dr. Hudson of Redruth:—

"1. That this meeting desires to express its entire disapproval of the views, in relation to consultations with homœopathic practitioners, expressed by the readers of Addresses in Medicine and Surgery at the annual meeting of the association at Ryde in 1881."

"2. That this meeting desires to direct the attention of the Committee of Council of the association to the resolutions in regard to homœopathic practitioners passed at the annual meeting of the association in 1852, and reaffirmed at the annual meetings of 1858 and 1861; and now calls upon the Committee of Council to put in force as speedily as possible By-law 3 against homœopaths and all members of the profession who assume designations implying the adoption of special modes of treatment."

"WORKHOUSE IRREGULARITIES."

THE result of the inquiry instituted at Birmingham by the Local Government Board inspectors with a view to the investigation of alleged "workhouse irregularities" has been to justify the medical officer. A charge was made to the effect that shower baths, blisters, and seclusion in the padded room of the workhouse were, occasionally at least if not habitually, employed as punishments, instead of exclusively for remedial purposes. This charge has not been sustained. The measures adopted have, so far as they have been under medical direction, been entirely therapeutical. This is as it should be. At the same time, the inquiry has made it apparent that the workhouse is not well managed as a whole. There are rules which require to be altered. The customary regulations do not work efficiently in institutions so large as the Birmingham workhouse. There must be many establishments under the jurisdiction of the Local Government Board which are in precisely the same predicament. We venture to urge that the same line of investigation which has been pursued in this case should be pursued elsewhere. Nothing but good can accrue from inquiries of this class, and they are, we have reason to believe, in some instances, much needed. Medical officers of large workhouses are practically in the hands or at the mercy of the masters. They can only issue orders and *hope* they will be faithfully and judiciously carried into effect. If the master of a workhouse does not happen to like the "doctor," it is not only easy for him to make himself exceedingly disagreeable, but always possible to place the medical officer in circumstances at once embarrassing and likely to damage his professional reputation. This is a contingency against which the Local Government Board should by its supreme authority provide.

CONVALESCENT HOMES FOR PUERPERAL WOMEN.

THE need of convalescent homes for the lying-in poor has been long felt, and we have advocated their formation. In the course of the past year the Princess Frederica took interest in the subject, and a home was formed under her auspices and patronage. We are glad to find there is a proposition to found another, but of a somewhat different character. It is intended for single women only who have been confined at Queen Charlotte's Lying-in Hospital. It is to be called "Queen Charlotte's Convalescent Home," and this arrangement was permitted by the committee of Queen Charlotte's on the condition that its benefits should be limited to single girls confined in that institution. We heartily approve any effort to aid single girls who have got "into trouble," but we cannot help regretting the very narrow basis on which it is intended to found the new home.

STILL- OR LIVE-BIRTH.

BIRMINGHAM is favoured in many respects, but in none more perhaps than in having a coroner who appears to possess mysterious powers of recognising still-birth, if we are to believe the report of an inquest published in the *Birmingham Daily Post*. It seems that recently the body of an infant was found in the third-class ladies' waiting-room of Snow-hill station. An inquest was held by the borough coroner, who is a lawyer. He is reported to have said that "he had not found it necessary to call a medical man as a witness, as he (the coroner) could see that the child had been still-born." By what means the coroner could see "that the child had been still-born" it is not possible to conceive, as it does not appear that he favoured the jury with his reasons. Perhaps it was well he did not, as the question of still- or live-birth is not infrequently one of great difficulty, and always requires a careful scientific examination for its solution.

DUBLIN HOSPITAL SUNDAY FUND.

AFTER payment of the ordinary expenses, a sum of about £3980 has become available for distribution, and it has been decided to divide the sum of £3750 among the participating hospitals, now sixteen in number. The Adelaide Hospital heads the list with a grant of £835 6*s.* 4*d.*, while the lowest sum—viz., £49 5*s.* 6*d.*—has been allocated to the National Eye and Ear Infirmary.

OUR readers will peruse with much regret the concise statement which Dr. Richardson has this week communicated to our columns respecting the fall of the tower of the church containing the remains of William Harvey. The beautiful tower, as Dr. Richardson justly describes it, was faithfully depicted in these pages when he wrote for us the essay in which he described that the mask of the bust of the great discoverer, which is in the church, was from a cast taken after death. We shall one and all join, it is to be hoped, in taking part in the restoration for which Dr. Richardson pleads so opportunely.

IN reference to the escape of the small-pox patient from Westhulme Fever Hospital, the following are the principal facts of the case:—When admitted the patient was suffering from confluent small-pox, and having broken one of the wrist-straps which secured him to the bed, while in a state of delirium managed to escape; two nurses were in attendance on him at the time, and the matron and other aid were quickly summoned, but being a very powerful man, and having seized an iron shovel with which he rushed at the nurses, a sort of panic seemed to ensue. He smashed seven panes of glass and made his escape.

A MEETING of the Royal Commission on Small-pox and Fever Hospitals was held at No. 10 Committee-room, House of Commons, on Jan. 27th. There were present at the meeting Lord Blachford, K.C.M.G.; Sir James Paget; Sir Rutherford Alcock, K.C.B.; Mr. A. W. Peel, M.P.; Mr. E. L. Pemberton, M.P.; Dr. A. Carpenter; Dr. J. Burdon Sanderson; Dr. W. H. Broadbent; Mr. Jonathan Hutchinson; and the Secretary, Mr. Nathaniel Baker.

WE regret to learn that a severe accident has befallen Dr. F. J. Mouat, of the Local Government Board, in consequence of a fall from which he suffered during a recent inspection. It is reported that fracture of a clavicle or dislocation of a shoulder has been the result.

DEPUTY SURGEON-GENERAL MOORE, honorary surgeon to the Viceroy of India, has been elected Dean of the Faculty in the University of Bombay.

THE death is announced of Professor Schwann, the distinguished histologist, at the age of seventy-two.

THE grand jury at the Old Bailey have found a true bill for wilful murder against Mr. Lamson.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Waltham Holy Cross.—Mr. Arthur Priest submitted his annual report for 1881 for this district to a recent meeting of the Local Board. The mortality from all causes in the district he returned at the annual rate of $11\frac{8}{10}$ths per 1000 of the population, the birth-rate at 35 per 1000. The enumerated population in 1871 numbered 5197, in 1881 the number was 5386, showing a growth of 171 only during the ten years. But the births during that period had been 1746, the deaths 748, showing a natural increase of 998, so that 827 individuals had left the district in ten years. The late census showed that the inhabited houses had increased from 978 in 1871 to 1051 in 1881. This increase, says Mr. Priest, "has been in a measure beneficial, as it has done away to a certain extent with the overcrowding I have so often complained about." Deaths of young children under five years of age markedly decreased during the year, and the district was singularly free from fatal zymotic diseases. Advance was made in the sanitary improvement of the district, but not to the extent the medical officer of health had been justified in looking for. "The progress of conversion of the old noxious cesspools into closets connected with the Local Board sewers has not been carried out as it ought to have been during the past year." There would appear to have been some laxity in the Board carrying out its determinations in this respect, which we may hope to see amended during the present year. Mr. Priest describes in some detail the localities where sanitary works assented to have not been carried out, and in which they are still required; but the Local Board is evidently working in the right track, and perseverance is clearly only needed to place Waltham Holy Cross in a sanitary condition such as its medical officer of health would have it. The water-supply of the place would appear to be good, and Mr. Priest observes, "It is very satisfactory to be able to allude to the marked improvement that is to be noticed in the sanitary condition of the district since the carrying out of the main-drainage scheme, and the doing away with the numerous cesspools in the town; and also to the benefit derived by the inhabitants in being enabled to obtain pure water at so little trouble."

Alnwick and Canongate (*Urban*).—Dr. Finlay A. McEwen, in his first annual report for this district, reports for 1881 a birth-rate of 32 per 1000 of the population, and a death-rate of 21·8 per 1000. The deaths during the five years (1875–1879) had been at the annual rate of 24 per 1000 of the population. No deaths from zymotic disease were registered, and the district was exceptionally free from such diseases during the year. Infantile mortality was also low, but Dr. McEwen takes occasion to offer some strong observations upon the ignorance shown by many mothers in feeding their infants, the careless use of the "feeding-bottle," and the too frequent deprivation of the mother's milk. The general death-rate for the town Dr. McEwen considers, having regard to the advantages of its position and to the absence of fatal zymotics during the year, to be too high. The deaths also from phthisis he holds to have an undue preponderance; but it is obvious that sanitary improvements in the district are by no means exhausted. The water-supply of the district, according to the report of a Committee of the Sanitary Authority, is such that "the main part of the supply of the town is very far from being pure wholesome water;" and Dr. McEwen says that "a large portion of the water-supply is dangerously open to contamination." Again, there are old portions of the district, consisting of dark, ill-ventilated crowded courts, containing accumulations of manure and numerous piggeries and middensteads, at the best unsavoury localities, and unwholesome as dwelling-places. But there are certain indications of amendment, and we shall look for better and more favourable accounts in future reports. Dr. McEwen pathetically refers to the fact that the salary of the medical officer of health is £25 a year, and adds, "too much cannot be expected from him." But having regard to his reference to the pig-keeping in the town, it may fairly be said that in this report he has contrived to make "a silk purse out of a sow's ear."

THE THAMES WATER IN DECEMBER.

Colonel Bolton states, in his report on the Metropolitan Water Companies in December, that the state of the Thames at the intakes of those companies which take water from the Thames was bad in quality during the month, the river being in flood throughout the whole time. Dr. Frankland reports that the "Thames water sent out by the West Middlesex and Southwark Companies was much polluted with organic matter, whilst that distributed by the Grand Junction and Lambeth Companies, though less so, was of worse quality than any supplied since March last. With the exception of the West Middlesex and Grand Junction Companies' waters, which were slightly turbid, the filtration previous to delivery was efficient. The Grand Junction Company's water contained moving organisms.

Among private Bills about to be promoted in the coming session of Parliament, we learn from the *Local Government Chronicle* that one contains a provision requiring notice to be given to the medical officer of health, under a heavy penalty, when any person residing in or any way engaged in any dairy building, or place for the sale or storage of milk, is seized with any infectious disease; another Bill imposes a penalty on any person who sells or delivers milk which to his knowledge has been brought from any farmhouse, dairy, or other place in which any person resides or is employed who is or has recently been suffering from any such disease; a further clause enables a medical officer of health to require any cowkeeper or milk seller to furnish a complete list of his customers, when there is reason to believe the spread of infection is to be attributed to his milk. Another provision is to prevent the spread of infection through the agency of public libraries. It renders it an offence for any

librarian knowingly to supply from such library any book, magazine, pamphlet, or newspaper to any person residing in a house or part of a house in which there is or has within six weeks previously been any person suffering from any infectious disease, and which shall not have been disinfected to the satisfaction of the sanitary authority.

The Epsom Rural Sanitary Authority have rented a villa on Banstead Downs, belonging to the Brighton Railway Company, for an infectious disease hospital. Of course, the usual objections of "scare" in the neighbourhood, danger to the immediately surrounding district, and so forth, have been made, but the Authority adheres to its arrangement, and Dr. Jacob and the clerk have been instructed to prepare proper rules for the management of the hospital, which one of the members not inaptly proposed to term "Jacob's Villa."

The Wakefield Rural Sanitary Authority is much discomposed because its building by-laws, framed, it may be presumed, on the model by-laws of the Local Government Board, forbid the erection, or rather are inconsistent with the erection, of back-to-back houses in its district. "The by-laws," observes the local inspector of the district, "were calculated to shut out most of the building land in that district, because people could not build to pay." An appeal is to be made to the Local Government Board on the subject.

The Birmingham Poor-law medical service appears to have become considerably disjointed of late. One of the medical officers has been severely censured by the Guardians, and Mr. Henley and Dr. Mouat of the Local Government Board have been holding an inquiry concerning certain complaints urged against others.

It is reported that, small-pox having appeared in the Bolton Workhouse, the Guardians have resolved to issue tobacco freely to the inmates in order that the wards may be disinfected by the fumes. The congregation of the inmates together at religious services, and even at meal-times, is also forbidden.

Small-pox has broken out in the gaol at Leeds; and the Corporation, wanting a hospital for small-pox, is pretty well helpless in the matter. Advertisements have been issued for a site, on the principle that it is prudent to lock the stable door after the horse is stolen.

The Town Council of Leeds have decided on the erection of a temporary small-pox hospital at Stonycroft.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5917 births and 4018 deaths were registered during the week ending the 28th ult. The annual death-rate in these towns, which had been equal to 25·2, 23·3, and 22·6 in the first three weeks of the year, rose again last week to 24·8. The lowest rates in these towns last week were 17·5 in Derby, 18·5 in Leeds, and 19·4 in Hull; the rates in the other towns ranged upwards to 26·6 in Plymouth, 27·2 in Sunderland, 28·7 in Liverpool, and 28·9 in Birkenhead. The deaths referred to the principal zymotic diseases in the twenty-eight towns rose last week to 595; of these, 254 resulted from whooping-cough, 101 from measles, 82 from scarlet fever, 54 from diarrhœa, 52 from "fever" (principally enteric), 29 from small-pox, and 23 from diphtheria. The lowest death-rates from these zymotic diseases occurred last week in Halifax and Leicester, and the highest in Huddersfield, Sunderland, and Brighton. Whooping-cough showed the largest proportional fatality in Brighton, London, and Huddersfield; measles in Blackburn and Norwich; scarlet fever in Hull, Sunderland, and Brighton; and "fever" in Newcastle-upon-Tyne and Birkenhead. Small-pox caused 31 more deaths in London and its suburban districts, 2 in Salford, one in Brighton, one in Nottingham, and one in Oldham. The number of small-pox cases in the metropolitan asylum hospitals last Saturday was 490; of these 96 were convalescent cases at Darenth. The new cases of small-pox admitted to these hospitals were 80 last week, against 102 and 66 in the two preceding weeks. The deaths referred to the respiratory diseases in London, which had steadily declined in the four preceding weeks from 612 to 415, rose again last week to 553, and exceeded the corrected weekly average by 34. The causes of 99, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths did not exceed 1·2 in London, whereas it averaged 3·7 in the twenty-seven provincial towns. All the causes of death were duly certified in Brighton, Plymouth, Wolverhampton, and Cardiff; while the proportions of uncertified deaths were largest in Nottingham, Salford, Huddersfield, Halifax, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 23·4 and 22·1 in the two preceding weeks, was 22·6 in the week ending the 28th ult., and 2·2 below the average rate in the twenty-eight large English towns. The deaths referred to the principal zymotic diseases in these Scotch towns, which had been 102 and 71 in the two previous weeks, rose again to 90 last week; of these, 24 resulted from diarrhœa, 19 from whooping-cough, 17 from diphtheria, 13 from "fever," 11 from measles, and 6 from scarlet fever. The annual death-rate from these zymotic diseases was equal to 3·8 per 1000. The highest zymotic death-rates in the Scotch towns last week were 4·7 in Glasgow and 5·2 in Greenock. The 24 deaths attributed to diarrhœa, of which 12 were returned in Glasgow, showed an increase of 3 upon the number in the previous week; they were equal to an annual rate more than three times as high as that prevailing in the English towns. The 19 deaths from whooping-cough included 13 in Glasgow and 3 in Greenock; and 6 of the 11 fatal cases of measles were also returned in Glasgow. The 17 deaths from diphtheria were within three of the high number in the previous week, and included 6 in Glasgow, 5 in Edinburgh, and 2 in Greenock. The 13 deaths referred to "fever" corresponded with the number in the previous week; 5 occurred in Glasgow, 5 in Edinburgh, and 2 in Paisley. Fever fatality was nearly twice as great in the Scotch as in the English towns. The deaths attributed to acute diseases of the lungs, which had been 133 in the previous week, further declined to 101 last week, and were no fewer than 247 below the numbers returned in the corresponding week of last year.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 36·0, 35·1, and 33·7 per 1000 in the first three weeks of the year, rose again to 36·1 in the week ending 28th ult. The 241 deaths in the city showed an increase of 16 on the number in the preceding week; 47 were referred to measles, 6 to "fever," 2 to whooping-cough, one to scarlet fever, one to diarrhœa, and not one either to small-pox or diphtheria. The annual death-rate from these principal zymotic diseases was equal to 8·5 per 1000 in the city, while the rate from the same diseases did not exceed 4·3 in London and 3·6 in Edinburgh. The fatal cases of measles, which had been 38 and 33 in the two preceding weeks, rose to 47 last week, and exceeded the number returned in any previous week of the present exceptionally fatal epidemic. The 6 deaths referred to "fever" also exceeded the numbers returned in recent weeks. The deaths, both of infants and of elderly persons, exceeded the numbers returned in the previous week. Nearly 25 per cent. of the deaths in the city were recorded in public institutions.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

MANCHESTER AND SALFORD SANITARY ASSOCIATION.

The Manchester and Salford Association, the annual meeting of the friends and supporters of which was held last week, appears to be doing good and much needed work. Lectures on health questions have been delivered during the past year, and a union has been effected with the Ladies' Sanitary Association. A more extended use is being made by the public of the advantages afforded by the house inspection department of the Society, which undertakes a thorough examination of the sanitary arrangements of houses occupied, or about to be occupied, by tenants. As a practical result of the teachings of the Association, a company has been formed, by which blocks of model dwellings have been erected embodying some of the more generally accepted doctrines of sanitary science. All this is very

satisfactory. It is to be hoped that financial difficulties (the committee of the Society, we see, appeal for funds) will not be allowed to cripple the well-intentioned efforts of the Association towards raising the health status of the population amongst which it works.

Small-pox has assumed such proportions at Bolton that a house-to-house visitation, to ascertain the state of vaccination in the district, has been instituted.

An Italian barque put in at Greenock last week, in the course of the voyage of which from Pensacola the captain, mate, and two of the crew had died from yellow fever.

In Chicago, recently (says an American contemporary), the health officers visited two churches on Sunday, and vaccinated the entire congregations.

The outbreak of small-pox in Maidstone is reported not to be extending, and instructions have been issued that no more prisoners be sent there for the present.

THE SERVICES.

Brigade Surgeon Samuel B. Roe, C.B., Surgeon-Major Heather, and Surgeon Chester arrived from Natal in the s.s. *Calabria*, on the 29th ult. and disembarked at Portsmouth. Dr. Roe accompanied the Gordon Highlanders from India to the Transvaal with the reinforcements last spring.

Brigade Surgeon Watts and Surgeon W. Donovan, A.M.D., have arrived in Bombay in the steamer *Hankow*, from Natal.

Surgeon-Major J. Reynolds, V.C., has been ordered from Aldershot to Gibraltar for a tour of duty.

The Bearer Company of the Army Hospital Corps, under the command of Surgeon-Major W. Johnston, A.M.D., arrived from Natal in the s.s. *Duart Castle* at Portsmouth on the 28th ult., and proceeded to Aldershot. Surgeon-Major T. Faris, Surgeon Drury, and Lieutenant of Orderlies Pike were on duty with the company in Africa and accompanied it to England.

Yellow fever having disappeared from the island of Barbadoes, and the Colonial authorities having issued clean bills of health, the Government have decided to send a regiment from Malta to take the place of the 1st Royal Lancaster Regiment, which was withdrawn in the autumn in consequence of the severe epidemic. The 1st Battalion Lothian Regiment has been selected, and will leave Malta in March for the West India Islands.

Enteric fever, in a severe form, has appeared at Newcastle, South Africa, amongst the regiments marching back from the Transvaal stations.

Surgeon-Major R. Tate, M.D., Army Medical Department, died at Dublin on the 19th ult. from renal disease. Deceased had been in delicate health, but was able to attend to his duties up to the day of his death. He joined the Army in 1859, and became Surgeon-Major in July, 1874.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major William Curran has been granted retired pay, with the honorary rank of Brigade Surgeon; Surgeon-Major Thomas Young Baker, from half-pay, to be Surgeon-Major.

ADMIRALTY.—The following promotion has been made:—Staff Surgeon Ingham Hanbury to be Fleet Surgeon in Her Majesty's Fleet, with seniority of 15th ult.

Deputy-Inspector-General Dugald M'Ewan, M.D., has been reappointed to the *Victoria* and *Albert*, from the date of promotion; Surgeon Nicholas C. Ross has been appointed to the *Orwell*, vice Kelly.

MANCHESTER MEDICO-ETHICAL ASSOCIATION.—The thirty-fourth annual meeting of this Association was held at the Grosvenor Hotel on Friday, January 27th. The report of the Committee showed the growing prosperity of the Association, the number of members and the funds having steadily increased. The following is a list of office-bearers and Committee for 1882:—President: Mr. Hardie. Vice-Presidents: Mr. Dacre Fox, Dr. John Roberts, Dr. Henry Simpson, and Dr. Stevenson. Treasurer: Dr. Joseph Stone. Secretaries: Dr. A. Wahltuch and Mr. J. Broadbent. Committee: Dr. Barlow, Mr. Crosbie, Dr. Cullingworth, Dr. A. M. Edge, Dr. A. Emrys Jones, Dr. Mallett, Dr. Pierce, Mr. Reston, Dr. D. Lloyd Roberts, Dr. Thorburn, Mr. Walmsley, and Mr. Westmorland.

THE ROYAL COLLEGE OF PHYSICIANS.

AT the ordinary meeting, on Thursday, the 26th ult., after confirmation of the minutes of the previous meeting, the President directed attention to the almost verbatim reports which had appeared in some of the medical journals of the speeches made at the last meeting of the College, and expressed, for himself and others, the opinion that such a proceeding was calculated to prevent free discussion, and that the practice was contrary to all precedent, and most undesirable.

Permission was granted to hold in the College library a meeting of persons interested in the promotion of scientific researches, with a view to establish a society. Similar permission was also granted to the General Committee of the Rolleston Memorial Fund.

A communication was received announcing that a Medical Congress would take place at Seville on April 9th, 1882. The thanks of the College were voted to the donors of books.

The following were elected Members of Council in the room of four who retire in rotation:—

H. W. ACLAND, M.D., Oxford.
W. WOOD, M.D., Harley-street.
W. ROBERTS, M.D., Manchester.
G. HEWITT, M.D., Berkeley-square.

The annual report of the Examiners was received. The report stated that the number of candidates at the examinations for the licence had considerably increased during the past year, it being more particularly noticeable in the number of those who had presented themselves at the first of the three examinations which the College by its recent regulations requires all candidates to pass. In 1880 there were fifty-seven candidates at the first examination; last year there had been 367 candidates examined; and of these, 258 were approved, and 109 referred for three months' further study. At the second examination there had been forty-six candidates during the year, of whom twenty were approved. At the third or final examination, of 116 candidates examined, ninety obtained the licence of the College, and twenty-six were referred for six months' further study. Appended to this report is a tabular statement not intended for publication, showing the number of those approved and of those not approved at the final examination, arranged under the name of the university or medical school from which the candidates came.

A report from the Council was read, and the first portion was adopted. The remainder was ordered to be printed and circulated among the Fellows prior to its consideration at the next meeting.

A LONDON AMBULANCE SERVICE.

A MEETING to consider the advisability of forming a Hospital and Accident Ambulance Service for London was held at the United Service Institution on Thursday, the 2nd inst., H.R.H. the Duke of Cambridge in the chair. The Secretary of the London Hospital read letters from the Archbishop of Canterbury and many influential persons, including several members of Parliament, expressing sympathy with the movement and regret at their unavoidable absence. The Duke of Cambridge then opened the proceedings in a speech evincing great interest in the enterprise, and pointing out that it was not proposed simply to supply a means of ready transit to the hospitals, but to place within reach of the general population a system of conveyances by which the injured might be safely and expeditiously removed to their own homes in case of accident. Sir William Gull moved the first resolution, to the effect, "That in the opinion of this meeting it is desirable to form a hospital and accident ambulance service for London." He strongly supported the movement, and insisted that not merely accidents, but emergencies, could be helped by the ambulance. In cases of sudden attacks of hæmoptysis, or apoplexy, quiet and prompt removal was necessary, and this the conveyances of the service would render possible. Mr. J. H. Buxton, the chairman of the London Hospital, seconded the resolution, suggesting that the ambulances should be kept at the docks and railway

and police stations, instead of at the hospitals. Dr. Benjamin Howard, of the United States Army, the originator of the movement, then stated his view of the need for a service of the kind he had proposed in London, and explained the system which had at his suggestion been inaugurated by the Committee of the London Hospital. A full report of the address delivered by Dr. Benjamin Howard on this subject before the Medical Society on Monday last appears on another page. The resolution was put to the meeting and carried *nem. con.* The second resolution was, "That a committee be formed to carry into effect the foregoing resolution; and that the following be requested to act upon the Committee, with power to add to their number—viz.: H.R.H. the Duke of Cambridge, President; the chairman, treasurer, and one or more members of the medical and surgical staff of each general hospital of London; the Chief Commissioner of Police; the Chairman and Deputy Chairman of the Metropolitan Asylums Board; the Chairman of the Metropolitan Board of Works; the Chief of the Fire Brigade; Sir E. Lechmere, Bart., M.P.; the Surgeon-General of Police; Sir William Gull, Bart.; Frederick Young, Esq.; Sir R. Macdonald Stephenson; Dr. Howard; the President of the National Health Association; the Editor of THE LANCET." This was moved by Mr. Crossman, to whom the successful commencement of this enterprise is mainly due. Sir Edmund Currie seconded the resolution, showing, in response to some remarks which fell from H.R.H. the Duke of Cambridge as to the expediency of combining a provision for the conveyance of infectious cases with the proposed service, that already the Metropolitan Asylums Board had made such provision, and achieved considerable success. Sir Sydney Waterlow, to whom Dr. Benjamin Howard had given letters of introduction, and who had seen the New York ambulance system at work, warmly supported the attempt to institute a service for London, and upheld the scheme submitted by Dr. B. Howard. Mr. T. Holmes, who spoke as surgeon to the police, while admitting the necessity of the movement, defended the police, and in reference to the mistake made by constables in confounding the "dead and dying," said that if they were all members of the College of Surgeons there would still be mistakes. Sir E. Lechmere, Bart., M.P., the chairman of the St. John Ambulance Society, claimed credit for the work done by that body. The proceedings were concluded by votes of thanks to H.R.H. the Duke of Cambridge and Dr. Benjamin Howard.

Correspondence.

"Audi alteram partem."

LITHOTRITY.

To the Editor of THE LANCET.

SIR,—The very able and succinct *résumé* of many of the chief facts relating to lithotrity and its history, given in THE LANCET last Saturday, calls from me, very reluctantly, one word of dissent. One which is all the more difficult to utter because the manner in which my own name is there associated with the subject is very highly, I may say gratefully, appreciated by me.

It is, then, only in the interest of absolute historical accuracy that I ask permission to state that the employment of anæsthesia in lithotrity was the rule of practice some years before the period of "four years ago," at which it is stated to have commenced. I am sure you will acquit me of any desire to lessen, by one iota, the great claim which Professor Bigelow has to be the author of the latest and one of the greatest improvements in lithotrity. By words, and more emphatically by my practice and remarks on it, just published, I have borne the highest testimony to the value of his idea. But this idea consists entirely in the proposal to remove the entire calculus, however large, at one sitting, by prolonged crushing and increased evacuation, and through the agency of larger instruments than have of late years been introduced into the bladder. Both anæsthesia and the aspirator had been for years employed as the almost invariable rule of practice, both by myself and others—a fact so notorious to the numerous surgeons who have seen men operate, that I am astonished to find any statement about it necessary. Since, however, it appears to be so, Mr. G. B. Browne requested Mr. Clover, who, like myself, keeps written records of all his work, to state how often he gave anæsthetics for me during any years preceding 1878, the date indicated. The following is his reply:—

"On referring to my notes, I find that I gave the anæsthetic one hundred and thirty times, whilst Sir Henry Thompson performed lithotrity, in the two years 1876 and 1877. And in nearly all these cases he made use of the aspirator to remove fragments. The exceptions would not amount to ten per cent."

I think this should suffice to settle this question beyond all controversy, and therefore I do not lengthen this letter; otherwise additional and abundant evidence in relation to this and to an earlier period might be readily adduced.

I am, Sir, yours obediently,

Jan. 31st, 1882. HENRY THOMPSON.

FALL OF THE CHURCH, AT HEMPSTEAD, IN ESSEX, CONTAINING THE REMAINS OF WILLIAM HARVEY.

To the Editor of THE LANCET.

SIR,—I regret to say that the tower of the beautiful old church at Hempstead, in Essex—a drawing of which I gave to THE LANCET, as marking the burial-place of our Harvey—has suddenly crumbled and fallen to the ground.

During last week the old cracks in the tower extended, and so many new ones were observed, that on Saturday afternoon the Rev. John Escreet, the curate of Hempstead, gave orders about half-past four that the bells were not to be chimed for the Monday services, nor the clock wound up any more. Returning home, he wrote to the vicar for advice, but not under any idea that there was any immediate danger, for his examination of the tower externally, and of the winding staircase within, gave no indication of unsteadiness. He had not left the place, however, three hours before the whole mass lay in ruins. Between six and seven the south wall of the tower and the winding staircase began to crumble away a few feet above the ground, and in less than an hour the whole tower, except a little of the north wall, which still stands as high as the wall plate of the nave, slipped down, bringing with it nearly one-half of the roof, and one arch from the south side of the nave, and letting down a good part of the roof of the south aisle.

The vault in which Harvey lies is at the north-western angle of the church, and is, consequently, uninjured; but the beautiful old building, under the shadow of which he has so long lain, and which was so well known as the landmark of his resting-place, is gone.

I make this report at once, first, because of its historic interest in relation to one of our greatest of great men of the past; and secondly, that I may ask the profession to join in subscribing to the restoration of a structure which to every true Æsculapian is of so much interest. It has long been my wish to invite my brethren to lend their hand to this task, and now the opportunity seems to have come with such pressing necessity that the request will, I feel sure, meet with a ready response, not from England alone, but from America and from all parts where the immortal name of William Harvey is known and honoured.

I am, Sir, yours, &c.,

Feb. 1st, 1882. BENJAMIN WARD RICHARDSON.

FULHAM SMALL-POX HOSPITAL.

To the Editor of THE LANCET.

SIR,—It is an "open secret" that Mr. Power's report, referred to in to-day's LANCET, is adverse to the hospital and tends to support the theory of direct atmospheric infection as the explanation of the spread of small-pox in the locality. Hence the appointment of the Royal Commission. Surely it is injudicious to make a secret of such an important public document, which certainly ought to be published whilst the Commission is sitting, in order that its statements may be sifted by those who have been invited to give evidence.

I am, Sir, yours, &c.,

Jan. 28th, 1882. EXPECTANS.

"LUNACY LAW REFORM."

To the Editor of THE LANCET.

SIR,—You have briefly chronicled and made a few judicious remarks upon the circumstance that a lecture was delivered on January 16th by Mr. Railway Commissioner Miller, Q.C., LL.D., on the Reform of the Lunacy Laws. If the lecturer stated his views with lucidity, it cannot be said that he was not guilty of misrepresentation; and there was a professional fire about the delivery of some of his forensic brethren at the close of the evening which savoured a little of the Old Bailey. The lecturer, indeed, necessarily approached the subject in an aggressive spirit, from an honest conviction that the existing Lunacy Laws do not afford sufficient protection to the insane, and that many persons are unfairly "entrapped" and unjustly "incarcerated." Now, it is a very curious—I am not at all sure that it is not also a very significant—fact that the term "incarceration" is almost invariably used by the insane, when they are confined, to express their own included condition. When they perfectly recover from their mental disorder the term is quietly withdrawn from their vocabulary, as failing to express their then estimate of their temporary and beneficial removal from the outside world. There is a certain class, however, by whom this term is religiously preserved after regaining freedom. These are they who, well enough to be released, yet always retain something of the mad element which cannot be eliminated; affect publicity; are great at social and political discussions, enlarging freely upon the wrongs which afflict mankind. This term is taken up by those combative members of the Law who are charged to represent the grievances of their once "incarcerated" clients.

Dr. Wood, the well-known physician to St. Luke's Hospital, in the very temperate and well-balanced observations which he made during the discussion on the lecture, fairly complained of the application of an offensive word imported from prison phraseology. For myself, I do not so much complain of it as note the time and place of its birth. It is the verbal formula, in the first place, of a disordered mind, never relinquished until the disease which generated it has completely disappeared; and it shows clearly the idea entertained by one whose personal freedom is restricted, as to the character of his restriction and his inability to distinguish the difference between disease and crime.

Mr. Miller puts it forward that public sympathy is not awakened sufficiently to the violation of the "fundamental principles of personal liberty" which the Lunacy Laws sanction and represent, says that it is owing to the *vis inertiæ* of our institutions, and that no occurrence sufficiently startling has yet happened to bring about this much-desired "Lunacy Law Amendment"; but we all thought it was one of the grievances of which these malcontents so much complain that these startling incidents are constantly occurring. And several narratives were certainly given by speakers in the course of the evening with a view of showing what dreadful things (to their minds) can and do take place, and yet fail to arouse the action of the public and the Legislature. The lecturer, indeed, himself began by the large and general postulate "That there is no man or woman in England who is not liable to be incarcerated for life, without notice either to himself or anyone else, or without any power of securing an investigation of his case." Anything more absolutely reckless and untrue than this statement it is impossible to conceive; and it is a curious psychological problem how a logically trained mind, habitually occupied in the investigation of facts and in adjudicating upon their relation to each other, could put forward anything so monstrous and unproven as this affirmation.

The great grievance of the insane and their advocates is entirely of their own creation, and lies in the circumstance that the recognised tribunals of the country for dealing with mad people have not been organised by themselves; that the elaborate machinery constructed for their own and the public security is not of their own manufacture. It is the old story: "*I* am sane; it is the world that is crazy." But should not the criminal equally complain that he is not allowed to adjudicate upon the offence which has brought him within the pale of the criminal law? or the railway company assessed by an appointed commissioner that it is not allowed to assess its own delinquencies and liabilities in dispute?

Without pretending for a moment to say that the machinery of the Lunacy Laws is perfect, it is certainly liable to receive, and does receive, the fullest measure of misrepresentation. This arises from the very nature and condition of those for whom it is provided. The complainants are insane, and thereby unequal to estimate fairly the value of the appointed means for adjusting their unbalanced condition. And the stories of supposed wrong are told so powerfully and so piteously by them as to invite the sympathy and co-operation of a few self-styled philanthropists.

The mode in which these philanthropists set about dealing with their clients' grievances has been shown by the postulate of the lecturer previously quoted. Nor is it recommended as savouring of justice and impartiality by another postulate occurring later, where he states that the law of lunacy "assumes (1) imprisonment as the normal treatment for lunatics, and (2) throws the onus of proof upon the alleged lunatic, if only the prescribed certificate has been previously obtained in all proper form." Of course, the term "imprisonment" is meant to be offensive. And it is instructive to note that being less refined than "incarceration," it comes from the legal and not from the insane *thesaurus*. I thought the word asylum meant a place of refuge, a sanctuary. And if I am right it could not be more inaccurate in me to speak of a criminal in Newgate as being asylumed than for Mr. Commissioner Miller, Q.C., to speak of some poor stricken creature sent for care and comfort to an asylum as having been imprisoned. These are not the verbal weapons with which to fight the battles of the insane, or with which to engage in any good cause. The armoury from which they have been selected should be purged and cleansed.

As regards the second proposition of the above postulate, it should be clear that the *onus probandi* is thrown upon the medical officer who has charge of the alleged lunatic, though the evidence which furnishes his onus is derived from the subjective and objective condition of his patient.

One of the remedies proposed for the protection of those to whom lunacy is imputed is absolute publicity in the initial proceedings before a "competent judicial officer." It is hardly necessary to point out that publicity cannot constitute a real element of security; nay, rather it would constitute an element of embarrassment in a delicate inquiry as to mental competence. Moreover, this publicity is a direct means of encouraging that morbid curiosity which is wont to assume such odious proportions in our courts of criminal investigation. No one could recommend such an offensive and hurtful course who has at all familiarised himself with the delicate workings of the human mind, noted its sensitiveness under certain abnormal changes, its shrinking from observation under the sure and silent encroachments of disease. The height of cruelty and indecency could go no further than to bring a case of this sort into open court under the auspices of a forensic fanatic inspired with the one idea of "liberty of the subject." When the insanity assumes that loud and clamorous form which proclaims itself trumpet-tongued to everybody, its importation into a public court would equally impede the exercise of judicial calmness and general propriety. The boisterous vulgarity of some forms of insanity is proverbial; but its manifestation to the public eye and comment seems to be necessary to satisfy the exacting requirements of some of our Lunacy Law reformers. The protection of the insane, I venture to think, would not be advanced one iota by this invited publicity. For the public obviously know nothing of the more subtle symptoms of mental derangement, and under no circumstances could they be competent or empowered to aid the judgment of a fairly appointed tribunal.

And surely the opinion of the medical profession is not entirely to be ignored. When its speaks *ex cathedrâ* and says that this proposed initial publicity would be prejudicial to, would actually destroy the chance of, recovery in many recent cases, the "reform" desired should be relegated to later stages of medico-legal inquiry. But this would not satisfy Mr. Commissioner Miller, Q.C., and his coadjutors, one of whom, Mr. Safford, is unable to bear the idea of a person being placed in an asylum as insane without the world at large being acquainted with the circumstance. It is not right, he thinks, that the most disastrous, perhaps, of all afflictions should come upon a man, and that he should conceal it. It is essentially wrong that anyone should pass through this ordeal without our having the power to "spot" him afterwards as once mad. Thus unwise and unwholesome marriages would be obviated; by the "selection of the fittest" some limit at least would be placed on the

transmission of disease, and we should confer some tangible and material benefit upon posterity." Our legal enthusiast, forgetting all the "tall talk" about the "liberty of the subject," goes so far as to think that there should be some penal enactment to meet the case of those who conceal their family antecedents of insanity. From the standpoint of a "liberty of subject" advocate this does seem somewhat inconsistent. From my stand-point, however, it is quite another matter. To me the "liberty of the subject" is a blatant empty term which may mean anything or nothing according (to adopt the language of Mr. Weller) to the "taste and fancy of the speller." It may mean the restless and aggressive liberty to do everything that comes uppermost to an ill-arranged mind and person, or the liberty to do nothing but indulge in serene passivity. And so strong, indeed, do I feel upon the impropriety—not to say culpability—of blood alliances with the insane, or with weak and diseased of any kind, that I have never lost an opportunity of impressing my views upon a large community to whom such views should be specially serviceable. I regard it as the bounden duty of every man or woman about to contract a marriage to institute, directly or indirectly, some inquiries as to the health antecedents of the family tree upon which he or she proposes to be engrafted. This wise precaution is the "providence" (in the possession of all who choose to exercise it) so much needed to ensure physical and mental integrity; and will stand in better stead than that fetish providence invoked by those who, in spite of warning, have defied the well-ascertained laws of health, and raised obstructive barriers to their own progress and well-being. But surely the machinery of an open court in the initial stage of insanity is not necessary to protect us from blundering in our blood alliances, or to ensure for us the discovery of disease which is naturally desired to be concealed.

There is another aspect of this publicity question which should not be lost sight of. It seems to be the desire of those who are so clamorous about the wrongs of the insane, that private asylums should be abolished, and even public asylums only resorted to under extreme and exceptional circumstances. Thus they would not only define the place but the mode of treatment—for the place is an essential element of treatment. It must be in public, where everybody can see it, unless there is some very cogent reason to the contrary. The labour of years in bringing together the uncared for and unprotected—in creating homes for the homeless—is to be swept away and dubbed "incarceration." It is desired to treat these cases "at home" (half of them have got no home) in order to avoid the possibility of "false imprisonment." Society is to be sacrificed to the individual. The "liberty" (which he does not know how to use) of one subject is of more importance than the order and well-being of the community at large. But surely the Lunacy Laws were provided to protect society from persons of this sort, and persons of this sort from society, which has often been, in their misuse of it, the factor of their madness, and by removal from which they may in all probability be cured. That has been a most unfortunate dictum which has given any encouragement to the idea that no person ought to be placed in a lunatic asylum but those who are dangerous either to themselves or others. Is the man who calls at Marlborough House, and tells the servant who opens the door to him that he, the caller, is the Prince of Wales, and that the distinguished person in possession is an impostor, to be allowed his liberty because he is not dangerous? Every person, being irresponsible, who disturbs the social economy and order by an act of this sort, should be placed where he cannot repeat it until the delusion has disappeared.

So also has the greatest injustice been committed by the failure of even acute legal minds to give us an intelligent definition of what is and what is not insanity. Of course it cannot be expected that the judges, who have seen nothing, only heard of, insanity, should be able to define it; but their intelligence might at least point them to a source from which they could get some legitimate information, and enable them to formulate an approximate definition which would not be quite so ludicrous and so at variance with facts as their present legal one.

There is another point to be alluded to before I close this letter, and that is the imperfect knowledge which is entertained by the public of the powers and duties of the Commissioners in Lunacy. Much unmerited obloquy is cast upon them by the Lunacy Law Reform agitators, and by the insane themselves, because they do not set themselves more boldly to redress imaginary grievances, and interfere where no interference is really necessary. I have never entertained any very exalted notions of this honorary and medico-legal salaried tribunal, and I have never used a servile pen or tongue (as some have done who ought to have known better) to attract its notice and invite its good opinion, though I have been under its jurisdiction for twenty years. But I think the working members of the Commission have very trying and exacting duties to perform, and they perform them, for the more part, with judgment and discretion. But many of the duties prescribed for them are useless and unnecessary, involving an expenditure of time which might be much better occupied. Like many other public servants, they would be much better if they had a better and much more efficient code. So far I agree with the agitators. But this improvement would not take the form of meddlesome officiousness, or give encouragement to the idea that misrule in asylum management is not very exceptional. On the other hand, medical superintendents, and others engaged in the treatment of insanity, should not misconstrue the object and nature of inquiries from Whitehall-place. The commissioners are bound to ask for reports on those to whom, from some quarter or another, or for some reason or another, their official attention has been directed. They are bound, moreover, to see (and this is their chief duty) that the Lunacy Acts are strictly complied with.

Lastly, I think it was pretty clearly proved by the special committee appointed by the House of Commons, three years ago, to make inquiry into the management of our asylums that these acts of unjust detention ("illegal incarceration") exist only in the imagination of the Lunacy Law reformers. Speaking as one who has just thrown off the harness, which he has worn for twenty years as a medical superintendent at the largest asylum in the United Kingdom, I venture to affirm that among the more than 2000 patients in Colney Hatch there could be found no case to illustrate the truth of the charges made by Mr. Commissioner Miller, Q.C., and his friends. And I venture to tell them that while the medical profession and the public are disposed to aid them in every way in effecting improvements, so far as practicable, in the Lunacy Laws, they are approaching the subject in the wrong spirit and in the wrong company to do do any good. "Diseased nature oftentimes breaks forth in strange eruptions." But it is unwise and impolitic to bring these eruptions to the fore, and clamour about them on the platform. Surely and silently all good works are done, and all noble causes advanced.

I am, Sir, faithfully yours,

Gloucester-square, Hyde-park, Jan. 23rd, 1882. EDGAR SHEPPARD, M.D.

HEALTH OF CANNES.

To the Editor of THE LANCET.

SIR,—A letter signed an "Exasperated Exile" appeared lately in the *Pall Mall Gazette*, containing very serious charges against the sanitary state of Cannes. This letter was brought to the notice of the Maire, who invited the English medical men practising in Cannes to meet him and express their opinions as to the sanitary state of the town. At this meeting all the English medical men, with one exception, were present. It was agreed that while the letter contained a certain proportion of truth, there was also much exaggeration and much that was incorrect. It was therefore considered best to place a clear statement of all the fever cases that have occurred since the commencement of the season before the profession, and allow them to form their own conclusions. This statement refers only to the English community, and may be accepted as absolutely correct. Total number of cases of typhoid was 13; remittent 4; deaths 3; under treatment 2. Cases of typhoid in private houses: A, 1; B, 1; C, 3; D, 2; E, 1; F, 2; G, 1. In hotels: A, 1; B, 1. The deaths were in the hotels and C. One of these, in hotel A, was clearly an imported case; and although the case in hotel B is marked in our list as of doubtful origin, from the fact that the patient had been in the hotel for a fortnight, it is to be kept in mind that neither before nor since has there been a case of typhoid, nor any other complaint which could be referred to deficient sanitation in that hotel. In some of the houses there was a great deficiency of sanitary arrangements, which, however, may be met with—and not unfrequently—at home. At the meeting the Maire explained the plans for the

new system of drainage about to be adopted, which cannot, unfortunately, be commenced until the sanction of the Government be obtained. The funds are ready, and the local authorities are waiting with impatience for the requisite permission. The Maire requested the English medical men to draw up a statement of what they conceived to be necessary with regard to sanitary matters, and promised to give every attention to their suggestions. He also promised to appoint an official whose duty shall be to inspect all villas and houses the proprietors of which apply for inspection, and to keep a register, open to the public, of those houses in which the sanitary arrangements have been found to be in good order. In future, therefore, anyone who takes a villa which is not on the official list will have only himself to thank if he finds that the drainage is bad. As complaints had been made of the cleansing and scavenging of the streets, the Maire explained that last year 20,000 francs had been paid to the contractor; but that this year the contract is for 50,000 francs, and that the present contractor having been found in default the authorities had employed extra labour at his expense, and warned him that his contract would be cancelled in case of further negligence. Arrangements are also being made, at considerable expense to the town, for emptying cesspools only at night. This operation is performed with great rapidity and cleanliness by a steam pump. The conference was of the most satisfactory nature, and all were satisfied that the Maire intends to act up to his motto, "Everything for the health and comfort of the visitors." As he is an able and energetic man, there can be little doubt that everything that can be done will be done to make the place healthy. The good health of the large number of workmen employed on building and road-making, &c., was the subject of favourable remark, there being only two cases of typhoid in the hospital, to which we are freely admitted by the courtesy of our French *confrères*, who are always happy to show us any cases of interest. At present, owing to the letter of the "Exasperated Exile," and to paragraphs in some of the society journals, there seems to be an impression abroad that one cannot visit Cannes without the certainty of catching a fever. I feel confident that the medical profession, for whom I write, have discrimination enough to prefer a plain statement of facts to any amount of smart writing in lay papers.

I am, Sir, yours faithfully,

Cannes, Jan. 1882. J. A. MENZIES, M.D.Edin. & Paris.

P.S.—Since writing the above, I am sorry to have to report another death, making four in all.

PHOSPHORUS NECROSIS.

To the Editor of THE LANCET.

SIR,—Might I be allowed, through the medium of your columns, to draw attention to the continued prevalence of phosphorus necrosis of the jaws and to suggest that some more stringent measures should be adopted for its prevention. During the last six months I have met with three cases of this necrosis in my out-patient department at the London Hospital. No doubt this circumstance is somewhat accidental, and I believe that a like proportion of cases has not occurred in the practice of my colleagues. The London Hospital, moreover, from its proximity to several large match factories, may attract more examples of this malady than do some other hospitals in the metropolis. But apart from this, it would appear that even so small a number as three cases in six months is excessive, if certain commonly accepted views as to the etiology of the disease be true. In spite of the observation of Laugenbeck, it is, I believe, somewhat generally supposed that this bone affection does not occur in patients with sound teeth and jaws, but that for its production the existence of a carious tooth or of a direct or indirect exposure of the alveolus is needed. If such be the case, a careful and frequent inspection of match factory operatives should very greatly diminish the amount of this disease and should hardly permit the experience just detailed.

Of the three cases, two were females, one a male. In the former instances the lower jaw was also affected, in the latter both jaws were involved. For the present purpose it will be sufficient to cite one only of these examples. The patient, a female, aged twenty-two, came to the hospital in August last with necrosis of the lower jaw. She was admitted, and I then removed a large sequestrum and discharged her. She has lately returned with fresh and more extensive disease. She entered a match factory at the age of thirteen, and was engaged there up to the time of applying at the hospital. Her employment has throughout been that of putting the matches (common lucifers) into the boxes prepared for them, and she has always worked in the same room. Her teeth were inspected when she entered the factory nine years ago, but have never been inspected since. Her teeth remained perfectly sound until eight months ago, when she found the first molar of the left lower jaw carious and painful. The tooth was extracted two months after, and the bone disease was from that time apparent. She asserts that five of her "mates" are laid-up with disease of the jaw, and gives such ample details of each case that there is little reason for doubting her account.

It must be acknowledged that phosphorus necrosis is a severe disease, and if the malady be preventable every step should be taken to limit its occurrence. I am assured by this patient and by others that an inspection of the mouth is made once only, and that is when the individual is first taken on at the works. If carious teeth have no concern in the etiology of this disease, then such an inspection is useless; but so long as it is held that defects in the teeth are potent in producing the necrosis, then it is obvious that an isolated inspection of the mouth, made in the present instance once in nine years, must be simply a farce. One further point is this. It would appear from the accounts given by patients that the amorphous phosphorus is not so harmless in the direction of necrosis as has been asserted by some. Arguing from these few facts, it may not be unreasonable to suggest that some fresh official inquiry should be made into the causes and prevalence of phosphorus necrosis, and that if any inspection of the operatives be necessary, it should be conducted with some more pretence to reason than at present obtains.—I remain, Sir, yours obediently,

Gordon-square, W.C., Jan. 23rd, 1882. FREDERICK TREVES.

"ON THE NECESSITY FOR THE DISINFECTION OF CLINICAL THERMOMETERS."

To the Editor of THE LANCET.

SIR,—With reference to this subject, brought forward by Dr. Hassall, may I be allowed to relate my experiences. I conclude that the "possibility" of carrying infection from patient to patient by means of clinical thermometers or stethoscopes must be admitted by all persons who possess the slightest insight into the nature and theories of contagia; but that such cases commonly occur I strongly doubt. Indeed, I am convinced that even under the most favourable conditions for the propagation of infection, with the ordinary care an intelligent practitioner would bestow, the occurrence of such cases is well-nigh out of the question. The beard of a medical man would seem to me to afford a much better vehicle for carrying infection than either thermometers or stethoscopes, especially when, as often happens during consultation, the hairs are brought into contact with the skin of the patient. Nevertheless, the danger with thermometers, &c., however remote, being a real one, is sufficient plea for care. The precautions I have always adopted with my thermometer after taking the temperature of a fever patient is merely to dip it immediately into a basin containing a weak solution of Condy's fluid (at the same time as I wash my hands), and put it at once, without wiping, into its case.

As a disinfectant I find nothing better than about half an ounce of pure crystalline iodine, suspended on a plate in the fever room; this, at the ordinary temperatures, gives off a perceptible amount of vapour. Over the plate I lay my stethoscope for a few minutes after using it to a fever case. This is much more convenient than any moist substance, especially if the instrument used be a wooden one. The credit of first introducing iodine as a disinfectant belongs, I believe, to Dr. Richardson. The method in which it acts, I suppose, is analogous to that of its allied halogen, chlorine—viz., by uniting with the hydrogen contained in putrefactive gases or disease germs, and by chemical decomposition, rendering them innocuous. While I was house-surgeon at the Weston-super-Mare Hospital, an epidemic of scarlet

fever occurred in the town. A number of cases were removed to the special fever wards of the hospital, and placed under my care. These wards I visited always twice daily, and often more frequently as occasion required. Now, although I had about thirty other beds to look after, including a children's ward, always full, and a good deal of out-door visiting, largely amongst children, besides, yet I am not aware that I ever carried infection. With the above precautions, I always used the same thermometer and stethoscope, and invariably took nearly all temperatures myself.

For disinfecting clothes, hair, &c., after visit to a fever ward, I am of opinion that nothing is more convenient or efficient than to stand for a short while in the cloud from one of Lister's carbolic steam sprays.—Yours, &c.,

T. A. PERRY MARSH, M.R.C.S., L.R.C.P.Lond.,
Late House-Surgeon, Weston-super-Mare Hospital.

Clifton, Jan. 30th, 1882.

IRELAND.

(From our own Correspondent.)

As mentioned by you last week, Dr. D. J. Cunningham of Edinburgh was elected Professor of Practical Anatomy in the Royal College of Surgeons. There were ten candidates for the post, and until recently it was surmised that Dr. Charles, Lecturer on Physiology in St. Thomas's Hospital Medical School, would have been selected; but when Dr. Cunningham came forward as a candidate the contest was virtually at an end. The gentleman who has been appointed is an M.D. of the University of Edinburgh and a Fellow of the Royal College of Surgeons, Senior Demonstrator of Anatomy in the University of Edinburgh, and delivers, jointly with Professor Turner, a winter course of lectures on anatomy; also Lecturer on Physiology in the Royal Veterinary College, and conducts during the summer session a practical course including histology. Dr. Cunningham is the author of numerous papers upon subjects connected with comparative anatomy, and of twelve monographs on Human Anatomy. Among the former may be mentioned a Report on the Anatomy of the Marsupial Animals brought home by H.M.S. *Challenger*, which is in process of publication, and among the latter the Dissector's Guide. From this it will be apparent that Dr. Cunningham's election as a successor to Professor Bevan must be regarded as a subject of congratulation.

Medical Education was the subject selected by Dr. Kidd at the annual meeting of the Dublin Branch of the British Medical Association, held last week at the College of Physicians. Having referred to the loss the Branch had sustained by the death of Drs. McClintock, Hayden, Harvey, &c., he alluded to the expected Report of the Royal Commissioners, and proceeded to offer some suggestions on the great question of medical reform. The most essential points were the establishment of conjoint schemes of examination and a uniform standard of education, and penal clauses for the repression of unlicensed practitioners. He believed that so long as human nature is what it is, unlicensed practitioners of the healing art for love or money could not be suppressed. As regards a uniform standard, Dr. Kidd considered it impracticable, and that it had been fatal to intellectual progress wherever it had been tried. Finally, he was of opinion that it would be better to retain the nineteen examining bodies and try whether they could not be induced to compete with one another as to which should bear the highest character, do most to improve education, and so elevate their profession.

At the same meeting a Bill, proposed by the committee of council of the Irish Medical Association and the council of the Dublin Branch of the British Medical Association, in reference to the notification of infectious diseases in Ireland, was approved and adopted; and the council of the branch were authorised to take what steps might be considered advisable to obtain its introduction into Parliament during the ensuing session. The proposed Bill directs the person in charge of an inmate of a dwelling used for human habitation, who is suffering from an infectious disease, or the occupier, or any other person having the management or control of such building, to notify the same to the sanitary authority of the district. The medical practitioner attending a case of infectious disease may, if he desires, notify its occurrence to the sanitary authority, and shall deliver to the person in charge of the patient a certificate, which is to be retained by him or her. A fee of half-a-crown shall be paid to the medical practitioner for transmitting the certificate to the sanitary authority. Any person neglecting to give notice as required by this Act to the sanitary authority, shall be liable to imprisonment for a period not exceeding two months, or to a penalty not exceeding £5. It will be noticed that the medical practitioner is not compelled to notify direct to the sanitary authority, as required by Mr. Gray's Bill, and which met with such deserved opposition from the members of the profession in Dublin; and I believe that this Bill, if adopted by Parliament, will be accepted with approval throughout Ireland.

At a meeting of the Surgical Society held last week a presentation was made to Mr. B. Wills Richardson, late honorary secretary of the Society. The testimonial consisted of a tea service with jug and salver, the latter bearing an inscription to the effect that they were presented by the members in grateful recognition of his services as secretary for the past twenty-five years. At the same meeting a fracture of the astragalus was exhibited by Mr. H. Gray Croly, who considered it of interest as only one specimen of the kind was in the Museum of the College of Surgeons.

The Bill for the superannuation of union officers, which the Chief Secretary for Ireland has promised to introduce, will, if passed, transfer to the Local Government Board all the powers now vested in boards of guardians as to superannuation for medical officers. The Bill will adopt the scale and regulations as to age, &c., now in force for the members of the Civil Service, and, if carried, will be a boon to all medical officers connected with the Poor-law service. As an example of the unjust manner in which boards of guardians regard the subject of a retiring allowance to those incapacitated by age or infirmity, allusion may be made to the Newry guardians, who last week refused, by nineteen to four, a superannuation allowance of £40 per annum to Dr. May, late medical officer of Rathfriland dispensary district, after many years' service.

The guardians of the North Dublin Union have appointed a temporary substitute for Dr. Kenny, late medical officer of the workhouse, for the space of two months, not desiring to make a permanent appointment, so that should his removal by the Local Government Board prove to be illegal, he may be reinstated. I am, however, of opinion that the Local Government Board will not permit the vacancy to remain unfilled any longer; and it is highly probable that, as the guardians refuse to elect a successor to Dr. Kenny, the Board will take the matter out of their hands, and appoint a medical officer themselves. The emolument attached to the post is £150 per annum.

Obituary.

SIR ROBERT CHRISTISON, BART., M.D.

EDINBURGH has sustained a bereavement which it is difficult adequately to realise, by the death of Sir Robert Christison, Bart. Until lately his sage and influential counsel was almost daily being exerted in the interests of its University and its medical and scientific circles. His strongly-knit, elastic figure was present before its citizens as an illustration of the *mens sana in corpore sano*, which they had become so accustomed to, that the loss will never be forgotten by the present generation.

Beyond his native city, the medical profession wherever the English language is spoken will deeply regret the death of one who to so many has been a beloved and respected teacher, and to all the representative of the highest eminence in practical and scientific medicine, and in that true nobility of character which elevates by example the tone of the medical profession much beyond the immediate range of its influence. That influence as a living power has now been lost to us. We cannot afford to lose the power for good which is still left to us in the contemplation of his life and work.

Robert Christison, one of twins, was born in Edinburgh on July 18th, 1797. His father was Professor of Humanity (Latin) in the University, and has left a reputation for great learning, refined scholarship, and an enthusiastic admiration for the noble qualities of the heroes of his classical studies. His

early education was received at the High School of Edinburgh, which he left when only fourteen years of age to become a student in the Arts Faculty of the University. This training in literature, philosophy, and science was always acknowledged by him to have been of the greatest service in his medical education, which he began four years after entering the University. During the latter two years and a half of his medical study, by a fortunate chance, he became a resident in the Royal Infirmary, first as physician and then as surgeon's assistant, and thereby enjoyed at an exceptionally early age the best of opportunities for becoming intimately acquainted with practical work. In 1819 he graduated as M.D. The subject of his thesis on the occasion of his graduation is significant, "*De Febre Continua, quæ nuper in hac urbe* epidemica fuit, ex exemplis apud Nosocomium Regium tractatis, deducta." Soon afterwards he went to London, where he studied at St. Bartholomew's Hospital for several months. His interest was not, however, restricted to practical medicine or surgery. While still a student he displayed a partiality for the subject of chemistry, and formed one of a select band who were in the habit of discussing the more interesting facts and repeating the experiments brought from day to day under their notice by Professor Hope. He was associated in this self-educating class with, among others, Edward Turner, afterwards Lecturer on Chemistry in the London University, and with James Syme, whose eminence as a surgeon was destined in future years to co-operate so powerfully with that of Christison in greatly increasing the reputation of the Medical Faculty of the University. The doings of this youthful society formed for Christison an attractive recollection, and to the last he delighted to recount the difficulties met with in performing the experiments, and the startling results which were sometimes accidentally produced, in not a few of which Syme figured in a very prominent manner. Prompted, no doubt, by this partiality for chemical studies—for his father wisely permitted him considerable latitude in the details of his education—he proceeded from London to Paris, where he devoted himself mainly to laboratory work under Robiquet, finding opportunities, however, of hearing the lectures of Vauquelin and Thénard on chemistry, and of Orfila on toxicology. While he was in Paris the death of Dr. Gregory caused some changes in the occupancy of chairs in the University of Edinburgh, one result of which was that the Chair of Medical Jurisprudence became vacant. In his absence he was proposed as a candidate, and, after a severe contest, received the appointment, when only in the twenty-fifth year of his age, and a graduate of less than three years' standing. He soon justified in the most ample manner the wisdom of his selection. The subject of medical jurisprudence was then in a condition little removed from chaos. No text-book, no treatise in any special department, existed in the English language. It was taught in few of the medical schools. He had to encounter the task of systematising the knowledge existing on the subject; and, not content with this, he applied himself to adding, by his own investigations, precise knowledge on much that was doubtful, and facts which served to introduce into this many-sided subject many departments which previously were not in existence. His chemical knowledge, the experience gained in the unusual opportunities he had already enjoyed for medical and especially surgical practice, and his recent training in toxicology under Orfila, here proved of the greatest value to him. In 1829 he published the first edition of his "Treatise on Poisons," which has been characterised by the highest legal authority in Scotland as a book "which was received at once by physicians and jurists and men of science as the most philosophical and complete work that had yet been published on the subject," and which rapidly passed through four editions, the last having appeared in 1845. Although future acquisitions have necessarily rendered many of the statements contained in this work of less importance and value now than for many years after its first publication, the treatise still remains a valuable standard for reference. Principles are so carefully enunciated and supported by so many judiciously considered facts, drawn from a wide range of medical literature and of personal experience, original experiments and processes are so accurately described, and every statement is made in so clear and terse language, that the work will always remain a monument to the ability and scientific eminence of the author, and a prominent landmark in the history of medical jurisprudence. It naturally led to Christison's advice and evidence being much sought for in the law courts. His first case is said to have been the notorious one of Burke and Hare, and by-and-by he was employed in probably every important trial in Scotland involving matter of medical opinion. He never permitted himself to act as partisan, stated his deliberately formed opinions clearly and decidedly, and with the single object of aiding in the elucidation of truth. His evidence was rarely affected by cross-examination. Opposing counsel early discovered that it was nearly useless to subject him to the ordeal, and not infrequently when they did venture to do so the result was not altogether to their advantage.

To later generations of medical men and Edinburgh graduates Christison has been known chiefly as the Professor of Materia Medica, and the most masterful medical member of the Senatus. He was appointed to the Chair of Materia Medica in 1832, and continued to occupy it till his resignation in 1877. He was Professor in the University for the unprecedented period of fifty-five years. What medical graduate does not remember the unfailing punctuality with which the neatly dressed Professor entered his class-room and began his lecture at five minutes past nine, generally after a brisk walk from his house in Moray-place. Next to the academical eloquence and clearness of the Professor, and his fine collection of drugs, and pharmaceutical and botanical specimens, which are to adorn the museum of the new school, was the authority with which he ruled his class. It was the best ordered class in the University, not by any effort or word on the part of the Professor, who by his mere presence commanded the respect of the most irreverent student. Altogether beyond the bounds of the University and Scotland, Christison is known to pharmacists and physicians by his "Dispensatory," a commentary on the three British Pharmacopœias, published first in 1842, and again in 1848; and which may still be consulted with great advantage. It is interesting, as showing the wide range of men and literature and personal observation covered by his books, and for its sound generalisations in pharmacy and therapeutics. As the Crown Member of the Medical Council for Scotland, Christison was enabled to give great assistance, in the capacity of a member of the Pharmacopœia Committee, in the preparation of the British Pharmacopœia. During a certain portion of the session he was to be seen in the wards and in the clinical lecture-room, pointing out with rare precision the clinical and chemical features of disease, notably in such cases as diabetes and granular renal degeneration subjects which owe so much to his investigation that even now he is quoted as a chief and classical authority in regard to them. But Edinburgh students and graduates know that Christison's influence in the University was not confined to the lecture-room or the hospital ward. It was everywhere. It entered into all questions, from the establishment of a new chair to the admission of a new sex to University privileges. On the latter question Sir Robert's opinions were as pronounced and as prevailing as Dr. Andrew Wood's. The lapse of years, the almost complete disappearance of his contemporaries, and changes in the constitution of the Scottish Universities, made no difference in Christison's interest in his *alma mater*, for which he laboured in season and out of season. Rather did this interest seem to increase with time. He was a member of the University Court from its establishment, representing the Senatus until his resignation as Professor. In 1879 he was elected as Assessor by the General Council of the University. And no young professor delighted more in the recent unbounded success of the University than this veteran *alumnus*. The profession in Scotland, since the death of Abercrombie and Alison, have cheerfully recognised Sir Robert as their head, and have heaped honours upon him. He was Physician in Ordinary to the Queen in Scotland. He was twice President of the Royal College of Physicians. When the British Medical Association met in Edinburgh in 1875 he was president, and delivered an able address on the wrong side of the one-portal question. Outside his profession and out of his own country he was equally held in honour. His own University conferred on him the degree of LL.D., in recognition of his long services, and from the University of Oxford he received the degree of D.C.L. After the death of Brewster he was appointed President of the Royal Society of Scotland; and he had the great honour, in 1876, of being selected as President for the British Association for the Advancement of Science, which, on the advice of friends, he reluctantly declined.

We have far exceeded our space, and have left unsaid many

of the most wonderful traits in the character and history of Sir Robert Christison. In partial atonement for our shortcoming, let us commend to our readers an admirable notice of the illustrious Baronet, in the *Scotsman* of Saturday, Jan. 18th, written by a worthy and accomplished hand. We must summarise what remains to be told. No notice of Christison would be complete which did not include his fine and cultivated physique, making him famous as an athlete and a figure as he walked Edinburgh streets. In 1861, when sixty-four years old, he was induced to become captain of the University Volunteer Company, and only resigned this post after an illness in 1877. His bass voice was one of the musical treats of Edinburgh society, and his interest in music had much to do with the generous provisions for promoting its scientific study in the University. His general vigour was so far intact up to last year that he ascended Ben Nevis, and his scientific interest so well preserved that he gathered materials for a paper on Geology, which he read in December to the Royal Society. The well-informed writer in the *Scotsman* gives this account of the ending of this remarkable life. "Towards the end of December Professor Christison caught a cold which compelled him to keep his bed, and after about four weeks of gradually increasing prostration, he lapsed into a state of unconsciousness, with only occasional remissions, till the end came after a few minutes before six o'clock on the morning of the 23rd of January."

His funeral took place on Wednesday, and was made a public event by the presence of the Lord Provost, magistrates, and council of Edinburgh, representatives of the University and the scientific bodies of Scotland, of the medical staff of St. Bartholomew's Hospital, of which Sir Robert was formerly a pupil, of the Edinburgh Graduates' Club, &c. &c.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. — The following gentlemen were admitted Members at a meeting of the Examiners on Jan. 26th :—

Beever, Charles Edward, M.D. Lond., Harley-street.
Bradshaw, Alexander Frederick, Devonport.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Jan. 26th :—

Gilbert, James Wm. Thornton, Linden-gardens, Chiswick.
Larmuth, Leopold, Cheadle.
Shillito, William Alsope, Broomhall, Sheffield.

The following gentlemen also on the same day passed the Primary Professional Examination :—

John Bland Sutton, Middlesex Hospital; William John Clarkson Tomalin, Guy's Hospital; Thomas Wholey, London Hospital.

DEPUTY SURG.-GEN. THOS. TEEVAN, of Raceview, Enniskillen, has been appointed High Sheriff for the County Fermanagh.

A THIRD donation of £105 towards the Hospital Sunday Fund has been received from Mr. T. M. Drew, as representing the trustees of the late Mr. James Drew.

DR. JEFFERY, the president, and the members of the Working Committee of the recent Sanitary Exhibition at Hastings, have been presented with silver medals, and it was arranged to hold a similar exhibition next year.

A NEW Hospital for Women and Children is being erected at Calcutta. The cost is reckoned at about 30,000 rupees, of which rather less than one-half has been already subscribed.

UNIVERSITY COLLEGE HOSPITAL.—The Duke of Cambridge will preside at the annual dinner of this institution, which is to be held at the Langham Hotel on Wednesday, February 15th.

THE subscriptions to the Hull Infirmary raised by the Working Men's Committee amounted last year to £727 9s., being an increase of £117 16s. on the sum contributed by the same committee in 1880.

PROFESSOR PARKER, F.R.S., will commence his course of nine lectures on the "Morphology of the Mammalian Skull," in the theatre of the Royal College of Surgeons, on Monday next, the 6th inst., at four o'clock, and continue the same on Mondays, Wednesdays, and Fridays.

MR. THOMAS HILL, Chipping-Warden district, Banbury Union, has received the Government grant for successful vaccination (third time).

A NEW quarterly journal devoted to Neurology and Psychiatry, edited by Dr. T. A. McBride, assisted by Drs. L. C. Gray and E. C. Spitzka, is to be published this month in New York.

THE VICTORIA HOSPITAL FOR CHILDREN. — The Prince of Wales has appointed Wednesday, the 29th March next, at Willis's Rooms, for the festival dinner of the above hospital, at which his Royal Highness has consented to preside.

ROYAL MATERNITY CHARITY.—The report of the Committee, read at the annual meeting of the governors of this charity, held on Tuesday last, stated that more than 3000 women had been attended at their own homes during the past year. The complaint of lack of means, now sadly too common at anniversaries of medical charities, was not wanting on this occasion. Application for aid by over 200 poor women had had to be refused on account of insufficient funds.

THE VENTNOR CONSUMPTION HOSPITAL.—The annual meeting of the governors of this institution was held on the 30th ult., at the offices, Craven-street, Strand; Lord Lamington in the chair. The report of the Board of Management stated that the number of in-patients treated during the past year was 555, the majority of whom had greatly improved, many being enabled on their return to their homes to resume their usual occupations; most of them were from London. The number of deaths had been 24, or 4·3 per cent., owing to some unsuitable cases in an advanced stage of consumption being sent to Ventnor. The receipts had amounted to £7342, and the expenditure to £7351.

THE LATE MR. R. S. NUNN.—The Committee of the Essex and Colchester Hospital have passed the following resolution :—"The Committee desire to record the deep regret with which they have heard of the death of Mr. Roger Sturley Nunn, who for a term of forty-five years has been one of the surgeons of this hospital, the interests of which he has ever had most warmly at heart. They also wish to express in the strongest terms which they can employ their sense of the value of his distinguished professional ability, coupled with an unfailing courtesy and considerate kindness which were characteristic of him. And they further desire to convey to Mrs. Nunn and the other members of the family their most sincere and respectful condolence in their bereavement."

BOOKS ETC. RECEIVED.

BAILLIÈRE, GERMER, ET CIE.
Physiologie des Muscles et des Nerfs. Par Charles Richet. pp. 924. Avec 100 Figures dans le Texte.

BAILLIÈRE, J. B., ET FILS, Paris.
Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques. Tome XXXI. Rei—Rot.

BOGUE, D., London.
Practical Microscopy. By G. E. Davis, F.M.R.S. &c. pp. 334, Illustrated with 257 Woodcuts and a Coloured Frontispiece.

CHURCHILL, J. & A., London.
Hospitals and the State, with an Account of the Nursing at London Hospitals, and Statistical Tables. With Map.
Clinical Lectures on Diseases of the Heart and Aorta. Second Edition. By G. W. Balfour, M.D. St. And., F.R.C.P. Ed. pp. 469.
A Manual and Atlas of Medical Ophthalmoscopy. Second Edition. By W. R. Gowers, M.D., F.R.C.P. pp. 384. With Plates.
Guy's Hospital Reports. Third Series, Vol. XXV.
Lectures on the Pathology and Treatment of Lateral and other Forms of Curvature of the Spine. By Wm. Adams, F.R.C.S. Second Edition. pp. 302. Illustrated by 5 Lithographic Plates and 72 Wood Engravings.
Nervous Diseases, their Description and Treatment. By Allan McLane Hamilton, M.D. Second Edition, Revised and Enlarged. pp. 598. With 72 Illustrations.

COUCHMAN & CO., London.
Burdett's Official Intelligence for 1882. By H. C. Burdett, F.S.S. pp. 882.

LEWIS, H. K., London.
A Plea for Early Ovariotomy. By G. Granville Bantock, M.D., F.R.C.S. Ed. pp. 40.

MACMILLAN & CO., London.
Science and Culture, and other Essays. By T. H. Huxley, LL.D., F.R.S. pp. 349.
Physics of the Earth's Crust. By the Rev. Osmond Fisher, M.A., F.G.S. pp. 220. With Diagrams.

PAUL (KEGAN), TRENCH, & Co., London.

Aristotle on the Parts of Animals. Translated, with Introduction and Notes, by W. Ogle, M.D., F.R.C.P. pp. xxv.—263.

Myth and Science: an Essay. By Tito Vignoli. International Scientific Series, Vol. XXXVIII. pp. 327.

SMITH, ELDER, & Co., London.

Antiseptic Surgery: its Principles, Practice, History, and Results. By W. Watson Cheyne, M.B., F.R.C.S. pp. 616. With Illustrations.

Transactions of the Pathological Society of London. Vol. XXXII. pp. 418. Illustrated.

Essentials of the Principles and Practice of Medicine. By H. Hartshorne, M.D. Fifth Edition, thoroughly Revised and Improved. pp. 669. With 144 Illustrations.

The Bibliographer. No. 1. (Elliott Stock.)—Difteria dei Polli Trasmessibile all' Uomo; pel Dott. V. Cozzolino.—North American Review, Jan.—Ninety-ninth Annual Catalogue of the Medical School of Harvard University, 1881-82.—Engineering Education at Home and Abroad; by Edw. Mitchell.—Tripier's Amputation of the Foot; by P. J. Hayes, F.R.C.S.E.—Midland Medical Miscellany.—Virchow's Archiv.—Contributions Cliniques à l'Etude de l'Involution Utérine; par le Dr. Charles Milsom (de Cannes).—Food Reform Magazine.—Proceedings of the British National Veterinary Congress, 1881.—The Liverpool Medico-Chirurgical Journal, Jan. 1882.—Sprengel's Vacuum Pump; by H. Sprengel, Ph.D., F.R.S.—Transactions of the Sunday Society.—Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for 1881.—Index Medicus, Vol. III., No. 12.—Anæsthetics Medico-legally Considered; by Dr. J. G. Johnson.—History of the North London Hospital; by N. H. Nixon.—Journal of Physiology, Vol. III., Nos. 3 & 4.—Researches on the Minute Structure of the Thyroid Gland; by E. Cresswell Baber, M.B. Lond.—Chloral Hydrate, its Use in Obstetric Practice; by H. H. Kane, M.D.—Knowledge, Part 3. (Wyman & Sons.)—Contemporary Review, Feb.—Fraser's Magazine, Feb.—Good Words, Sunday Magazine, Feb. (Isbister & Co.)—Ueber Canalgasse.—Our Darlings. (Houghton & Co.)—Sullo Stiramento dei Nervi; studi Patologici e Clinici del Dott. F. Trombetta.—The Other Side of the Opium Question; by W. J. Moore, L.R.C.P. Ed.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

ANGOVE, E. SCUDAMORE, L.R.C.P.Ed., M.R.C.S., has been reappointed Medical Officer of Health for the Camborne Urban Sanitary District.

ATCHLEY, GEO. FRED., M.B.Lond., M.R.C.S., has been appointed Consulting Surgeon to the Bristol Royal Infirmary.

BALLARD, PHILIP, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer to the Fourth District of the West Ashford Union.

BRYDEN, R. J., M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to the Gravesend Infirmary, vice R. A. Birdwood, M.B., M.R.C.S., resigned.

CARRINGTON-STKES, M., L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to the Beckett Hospital and Dispensary, Barnsley, Yorks.

COCKSEDGE, THOS. A. J., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Bishopstone District of the Wilton Union.

EVANS, WILLIAM G., L.R.C.P.Ed., L.R.C.S.I., has been appointed Medical Officer to the Second District of the Frome Union.

FAIRLEY, Mr. THOS., has been reappointed Public Analyst for the Liberty of Ripon.

FLETCHER, JOHN, L.S.A.Lond., has been appointed House-Surgeon to the Manchester Royal Infirmary.

GORDON, EDWARD, L.S.A.Lond., has been appointed House-Surgeon to the Manchester Royal Infirmary.

HALE, EDMUND T., L.R.C.P., L.R.C.S.Ed., has been appointed Medical Officer to the Chew Magna District of the Chew Magna Union.

HARDIN, WALTER, L.K.Q.C.P.I., F.R.C.S.I., has been appointed Medical Officer to the West Drayton District of the Uxbridge Union.

HARRISON, JAMES, M.R.C.S., has been appointed House-Surgeon to the Manchester Royal Infirmary.

HAYES, JAMES, M.R.C.S., has been appointed House-Physician to the Manchester Royal Infirmary.

HOOPER, CHARLES, M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer of Health for the Aylesbury Urban Sanitary District.

KNIGHT, Mr. J. W., has been reappointed Public Analyst for the Borough of Cambridge.

KNIGHT, WILLIAM, M.R.C.S., L.R.C.P.Ed., has been appointed House-Surgeon to the Western General Dispensary, vice H. A. Powell, M.A., M.R.C.S., resigned.

MATTHEWS, WILLIAM CLARENCE, M. & L.M.R.C.S.Eng., L.S.A.Lond., has been appointed Medical Officer of Health for the Township of Gorton, near Manchester, vice R. E. Hammond, M.R.C.S., L.R.C.P.Lond., resigned.

MCGACHEN, F. W. D., L.F.P.S.Glas., L.S.A.Lond., has been appointed Medical Officer to the Sixth District of the Newport Pagnell Union

PIKE, CHARLES J., late House-Physician, has been appointed House-Surgeon to University College Hospital.

RYAN, W. H., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer to the Seventh District of the Newport Pagnell Union.

SCOTT, EDWARD J., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer to the First District of the Berwick-on-Tweed Union.

STIVEN, E. W. FLEMYNG, M.D., L.R.C.S.Ed., has been appointed Medical Officer to the Harrow District of the Hendon Union.

SUTCLIFFE, W. H., L.K.Q.C.P.I. & L.M., L.F.P.S.Glas., has been appointed an Honorary Medical Officer of the Jersey General Dispensary, vice J. Morison, M.D., M.R.C.S., resigned.

TAYLOR, JAMES J., L.R.C.S., L.R.C.P., L.M.Edin., has been appointed Junior House-Surgeon to the Darlington Hospital, vice J. Hern, M.B., M.R.C.S., promoted to Senior House-Surgeon.

THORNTON, BERTRAM, M.R.C.S., L.R.C.P.Lond., has been appointed Junior Resident Medical Officer to the Royal Sea-Bathing Infirmary, Margate.

WHITFORD, WILLIAM, M.D., M.Ch., has been appointed Honorary Assistant Surgeon to the Stanley Hospital, Liverpool; also appointed Honorary Assistant Surgeon to the Liverpool Cancer and Skin Hospital.

WALLACE, ALFRED CYPRIAN, M.R.C.S., L.R.C.P.Lond., late of St. Thomas's Hospital, has been appointed House-Surgeon to the Lincoln County Hospital.

WALKER, EDWARD B. S., M.B., has been appointed Junior Assistant Medical Officer to the Sussex County Asylum.

WALLERS, WILLIAM, M.R.C.S., has been appointed House-Surgeon to the Manchester Royal Infirmary.

WEBB, MALCOLM, M.R.C.S., has been appointed House-Physician to the Manchester Royal Infirmary.

WEBSTER, JOS. H., L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer to the First Wareham District of the Wareham and Purbeck Union.

WILLIAMS, MILES M., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer to the Brindle District of the Chorley Union.

Births, Marriages, and Deaths.

BIRTHS.

BENTHALL.—On the 31st ult., at Amyand House, Twickenham, the wife of Albert Benthall, M.R.C.P., of a daughter.

BOTHAMLEY.—On the 24th ult., at 28, Cadogan-terrace, Victoria-park, London, E., the wife of W. P. Bothamley, M.R.C.S., L.S.A.Lond., of a daughter.

FINNY.—On the 27th ult., at Lower Baggot-street, Dublin, the wife of J. Magee Finny, M.D., of a daughter.

NORBURY.—On the 8th ult., at Simons Town, Cape of Good Hope, the wife of Fleet-Surgeon Henry F. Norbury, C.B., R.N., of a son.

THOMPSON.—On the 25th ult., at the City and County Lunatic Asylum, Stapleton, Bristol, the wife of George Thompson, L.R.C.P.L., M.R.C.S., Medical Superintendent, of a daughter.

WRIGHT.—On the 28th ult., the wife of Francis Jas. Wright, M.D., of Northumberland House, Finsbury-park, of a daughter.

MARRIAGES.

CLARK—IRELAND.—On the 23rd ult., at Edinburgh, Henry Martyn Clark, M.B., C.M.Ed., Medical Missionary to the Punjab, to Mary Emma, surviving daughter of the late Capt. W. F. Ireland, 25th N.I Bengal Army.

FRANKLYN—HALL.—On the 28th ult., at the Parish Church, Millbrook, Edward James Franklyn, M.D., Deputy Surgeon-General, Army Medical Department, son of the late Captain Franklyn, R.N., to Matilda Elizabeth Helena, second daughter of the late Colonel Thomas Hall, D.L., of Killean, Argyllshire, and formerly of the Grenadier Guards.

TREVOR—MYTTON.—On the 24th ult., at the Parish Church, Gallsfield, Montgomeryshire, Francis Wollaston Trevor, M.B., C.M.Aber., A.M.D., eldest surviving son of E. S. R. Trevor, of Trowscoed, Montgomeryshire, to Mary Helen, youngest daughter of the late R. H. Mytton, of Garth, in the same county.

DEATHS.

ALFORD.—On the 21st ult., at Richmond-road, Southsea, Samuel Alford, M.R.C.S., youngest son of Henry Alford, F.R.C.S., of Taunton, aged 38.

CHRISTISON.—On the 27th ult., at Moray-place, Edinburgh, Sir Robert Christison, Bart., M.D., D.C.L., LL.D., one of Her Majesty's Physicians-in-Ordinary in Scotland, in his 85th year.

COLLIER.—On the 24th ult., at Brackley, Northamptonshire, John Collier, M.R.C.S., in his 80th year.

CRONIN.—On the 1st inst., at Claremont House, Brixton, Edward Cronin, M.D.

DAVISON.—On the 26th ult., at the residence of his friend, Major R. Cuming, The Firs, Honnslow, H. A. Davison, Esq., M.B., second son of Henry Davison, Esq., of Armagh, Ireland, aged 26.

MINSHULL.—On the 22nd ult., at his residence, Abercromby-square, J. Lonsdale Minshull, F.R.C.S., in his 83rd year.

NUNN.—On the 23rd ult., at The Oaks, Colchester, Roger Sturley Nunn, M.R.C.S., aged 69.

OWEN.—On the 26th ult., at Plymouth, Thomas Edward Owen, M.R.C.S., L.S.A.Lond., L.M.Dub., eldest son of the late Jeremiah Owen, Esq., H.M. Civil Service, aged 45.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, Feb. 6.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.: on Tuesday, 9 A.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor W. K. Parker, "On the Morphology of the Mammalian Skull."
ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Third Lettsomian Lecture: Mr. H. Royes Bell, "On Acute and Chronic Orchitis."

Tuesday, Feb. 7.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor John G. M'Kendrick, "On the Mechanism of the Senses."
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. The following specimens will be shown:—Addison's Disease; Incompetence of Tricuspid Valve; Congenital Tumour of Neck; Cardiac Hypertrophy; Fatty Degeneration of the Heart; Specimens of Gout; Osteoma of Tibia; Changes in Medulla Oblongata, causing sudden death; Unreduced Dislocation of Hip; Sarcoma of Bladder; Acute Suppurative Arthritis; Congenital Hypertrophy of Toes, &c.; Inguinal Hernia; Acute Farcy in Man.—Comparative Pathology: Fracture of Femur in a Puma; Pneumothorax in a Coati; Cystic Kidney in a Pig.—[By an oversight—for which, however, no officer of the Society is responsible—the announcement of a meeting of this Society was allowed to appear in our Diary of last week.]

Wednesday, Feb. 8.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.—Skin Department.—1.45 P.M., and on Saturday at 9.15 A.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor W. K. Parker, "On the Morphology of the Mammalian Skull."
HUNTERIAN SOCIETY.—7.30 P.M. Annual General Meeting for the Election of Officers.—8 P.M. The Hunterian Oration will be Delivered by Dr. Robert Fowler in the Theatre of the London Institution.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Annual Meeting for Election of Officers and Council.

Thursday, Feb. 9.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.
ROYAL INSTITUTION.—3 P.M. Professor Henry N. Moseley, "On Corals."
ABERNETHIAN SOCIETY (St. Bartholomew's Hospital).—Dr. Stowers, "On Skin Diseases in Relation to Syphilis."

Friday, Feb. 10.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor W. K. Parker, "On the Morphology of the Mammalian Skull."
ROYAL INSTITUTION.—8 P.M. Professor Frankland, "On the Climate of Town and Country."
CLINICAL SOCIETY OF LONDON.—Mr. Knowsley Thornton, "On a Case of Threatened Suppression of Urine after Ovariotomy; arms packed in cold wet towels; recovery."—Mr. Balmanno Squire, "On a Case of Erythema Iris."—Dr. D. W. Finlay, "On a Case of Aneurism of Ascending Aorta (patient will be shown)."—Mr. R. J. Godlee, "On a Case in which a piece of Grass swallowed by a Child made its exit in an Intercostal Space.

Saturday, Feb. 11.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor E. Pauer, "On Ludwig van Beethoven."

METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Feb. 2nd, 1882.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 27	30·38	S.E.	41	41	..	48	29	..	Overcast
,, 28	30·31	S.W.	47	46	..	52	38	..	Cloudy
,, 29	30·31	S.	48	45	..	53	45	..	Overcast
,, 30	30·28	N.	45	43	..	46	39	·15	Overcast
,, 31	30·62	E.	41	40	..	42	38	..	Overcast
Feb. 1	30·70	E.	32	32	..	41	30	..	Overcast
,, 2	30·53	S.E.	32	..	..	36	26	..	Foggy

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Lectures, original articles, and reports should be written on one side only of the paper.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

THE "NAPPER" TESTIMONIAL FUND.

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"SULPHIDE OF CALCIUM."

To the Editor of THE LANCET.

SIR,—Will any of your readers kindly inform me of a good method of administering sulphide of calcium in solution? This drug is so sparingly soluble in water that in order to give an ordinary dose, say one-eighth or one-tenth of a grain, large quantities of the solution have to be ordered, which is often objectionable, especially with children. I am unable to find any account of this drug in my collection of books.

I am, Sir, yours obediently,

Jan. 18th, 1882. HEALING.

"THE SMOKE-ABATEMENT EXHIBITION."

To the Editor of THE LANCET.

SIR,—In the report of my lecture in your issue of Dec. 24th, and which I saw to-day for the first time, the figures given are in such a form as to lead to misunderstanding, and I shall be obliged if you will correct them. The cost of coal for twelve months, £5 17*s.*, includes not only the 12-roomed house, but also two fires in the laboratory and office, one of which heated a plant-house 22 ft. by 10 ft., one-half of which is a tropical stove, kept at a minimum of 60° F. This winter the plant-house has been heated with breeze, bought and paid for separately, and another double office has been built, heated with one fire burning coal, leaving the conditions practically the same. The amount paid for coal, at 14*s.* per ton, from the 15th July last, six months, is £2 18*s.*, proving that my previous figures were correct, and that the average for the 12-roomed house and two extra fires in the offices remains the same. The gas consumption for heating purposes was given as being very considerably under £3. As closely as I can obtain the figures, it was £2 13*s.* to £2 14*s.* (gas 3*s.* 6*d.* per 1000), and this includes for a family of ten the whole of the cooking, two gas stoves in bedrooms, daily baths, and all hot water for washing and cleaning purposes, the washing of clothes not being done in the house.

The one point above all which I attempted to impress on the minds of those present was the enormous amount of sulphuric acid formed in the combustion of the coal, which is formed in proportion to the quantity of coal consumed in the country, whether in the form of gas or of solid fuel. The mischief caused by fogs is not done by the smoke, but by the sulphuric acid. How much damage this does may readily be judged by its action on the throat and lungs in a fog, and also by a little blue litmus paper and bicarbonate of soda. The first drops of a winter shower will turn litmus bright red, and will effervesce distinctly with bicarbonate of soda. A single drop in the eye is excessively painful, and blue litmus will show the presence of the acid in the air, the mud of the streets, moisture on the walls, and, in fact, everywhere.

Londoners live in a vapour bath of dilute sulphuric acid which chokes them, burns their umbrellas and clothes, and aggravates most seriously all bronchial diseases, probably also creating a large proportion of them. For miles round London the first few drops of a shower of rain will burn through the leaves of delicate plants almost like a red-hot iron, unless immediately washed off by the more dilute solution of sulphuric acid, which falls after the air has been partially washed by the first part of the shower. In a fog all this remains permanently suspended, and does irreparable mischief. To deal with smoke prevention only is to attack the lesser evil; a reduction of coal consumption such as I attempted to show in a hard practical form will at once reduce both evils to a minimum. The only way to do this is to show people how it can be done easily at a good profit, under practical conditions of every-day life. As I said at the lecture, we do it, have done it for years continuously without any care or supervision of any kind, and we make a profit out of it, which is well worth the consideration of both rich and poor. What we do is open to the inspection of all at any time; and knowing what I do now, if it had to be done again I would for every fire rigidly exclude every particle of iron, except the front bars, from every fireplace in the house. It is far too costly a luxury (if it is a luxury), and helps to increase the mischief which an attempt is now being made to reduce.

I am, Sir, yours, &c.,

THOS. FLETCHER.

Museum-street, Warrington, Jan. 24th, 1882.

Dr. F. Mackey.—The paper, if forwarded, shall receive due consideration.

Mr. White's communication shall have attention this week.

Aliquis.—We do not prescribe.

Mr. Hamilton Hoare's letter arrived too late for notice in our present number.

Dr. Dale's letter will appear in our next.

Coventry.—Apply to the Secretary, St. John's Gate.

"TRANSACTIONS OF THE INTERNATIONAL MEDICAL CONGRESS."

To the Editor of THE LANCET.

SIR,—At the end of your first notice of the above (p. 149 of the last issue of THE LANCET) your reviewer speaks of me as recommending ethyl bromide for anæsthetic purposes. My object is to call attention to its value as a local anæsthetic. Instead of merely acting as the ether spray, in numbing pain by the cold produced in its evaporation, I found under a spray of bromide ether that all feeling ceased not only before the part was frozen, but even before it had lost its redness; and, further, that this effect can be produced without spray by short covered contact. It is of the greatest service to the dentist. I appealed to the large use made of it as a general anæsthetic to show it can be more safely inhaled than chloroform. Direct experiments both in England and in America show that its depressant action on the heart has been much exaggerated.

I am, Sir, your obedient servant,

WILLIAM SQUIRE, M.D., F.R.C.P.

Orchard-street, Portman-square, W.,
Jan. 28th 1882.

NITS AND HOMŒOPATHS.

To the Editor of THE LANCET.

SIR,—I hope the "nits" will not feel degraded by the novel association I have thought fit to bestow upon them, nor the homœopaths take umbrage at their paper companionship with otherwise unwelcome friends; but as I am about to answer the letters of two of your correspondents, I thought I would do so in one and the same letter: hence the somewhat incongruous heading to this epistle.

First, then, let me grapple with Dr. Dudgeon. This gentleman is not correct when he states that "homœopaths do not put that name on their cards, door-plates, or the books they write." My acquaintance with homœopaths is, I am thankful to say, very limited, but I am certain that I have several times seen the name of "homœopath" on the cards of the practisers of that art and mystery, and within the last few months a homœopath has migrated from Brighton to Croydon, and he has put up a brass-plate with the word "Homœopath" below his own name, and in letters of much larger size than those in the name.

For "nits," "Medicus" will find the cleanest and most effective cure in some strong spirit—methylated spirit, alcohol, or strong whisky. The spirit bursts them in obedience to the law of endosmose. The nits which are nearly matured and ready for hatching into lice will be settled in a minute the first time of dressing with the spirit, but those which have only been recently deposited on the hair will not, and therefore it will be advisable to repeat the dressing next day and probably the day after. The point of first importance is to give the whole of the hair a thorough sousing with the spirit, and not be content with a mere piecemeal sort of work, or the pests will never be eradicated. When the hair is very thick, luxuriant, and curly, it is not an easy matter to bring every part of it in contact with the spirit, therefore more than ordinary care and perseverance are necessary in such cases. The ointment of the ammonio-chloride of mercury is also a certain cure, but it is not so cleanly, and I do not think it is so speedy in its operation as the strong spirit.

I am, Sir, your faithful servant,

Croydon, Jan. 14th, 1882. J. W. SHORTHOUSE, M.D.

Weekly Reader.—It is not usual for the resident medical officer to have charge of patients.

M.R.C.S.—The case of Prentiss is, we believe, the only instance in which the effect mentioned has been recorded, although it has led to the introduction into the market of a "pilocarpine hair dye."

Mr. Bennett May.—Yes.

Dr. G. E. Shuttleworth.—Yes, if not exceeding two columns.

TREATMENT OF PULMONARY TUBERCULOSIS.

To the Editor of THE LANCET.

SIR,—Will you permit me, through the medium of THE LANCET, to give my view of Mr. Whiteway Wilkinson's treatment of pulmonary tuberculosis? I think it a plan demanding some attention from medical practitioners.

About nine years ago a club patient, who had been under the care of a friend of mine, apparently in the last stage of pulmonary tuberculosis, and suffering from distressing diarrhœa, applied to me. Finding vegetable astringent injections, &c., of no use, I administered doses of one-eighth of a grain of sulphate of copper and a quarter of a grain of opium in pills every four hours, with the effect of stopping the diarrhœa, relieving the cough, greatly improving the appetite, and he got so much better that he was able to get out and follow his occupation, to my surprise and to that of my friend. This case made a strong impression on me, and I have resorted to the same remedy with good effect in several instances. A year or two after, having a case of gastric fever, with most distressing diarrhœa, and finding other remedies of little good, I again administered the sulphate of copper and opium, which controlled the diarrhœa, but which, after being continued some time, brought on severe strangury, and this I have found in several cases the consequence of continued use of the sulphate of copper. Now, what I wish to point out to the profession is that sulphate of copper, from its decided action on the mucous lining of the bowel and the bladder, may also exert a similar action on the mucous lining of the lung. I have no doubt of it myself, and have often thought of addressing you on the subject, but feel that the views of country practitioners are little valued. Mr. Whiteway Wilkinson's letter has induced me to offer a suggestion which I think deserves some attention from medical practitioners.—I am, Sir, yours obediently,

WILLIAM U. BURR.

The Cedars, Slough, Bucks, Jan. 29th, 1882.

CASE OF UNUSUALLY LONG UMBILICAL CORD.

To the Editor of THE LANCET.

SIR,—In your issue of Jan. 14th a case of unusually short cord is noted. In contradistinction to which, a case of unusually long cord occurred in my midwifery practice this morning, where the cord on measurement proved to be fifty-six inches in length. Although wound several times round the child's neck, and once round a leg, it had in no way interfered with the nutrition of the fœtus.—I am, Sir, yours truly,

ARCH. FINLAY, L.F.P.S.G. & L.S.A.L.

Custom House-terrace, Victoria Docks, E.,
Jan. 24th, 1882.

"A MELANCHOLY FACT."

UNDER this heading a contemporary tells the following story :—

"We learn from the *Avenir* of Laval, France, that the lunatic asylum of Mayenne lately received the whole family, Lochin, of the village of Andoville. The father, mother, and four children became mad at the same time. All kinds of conjectures are made at such a striking incident. A number of people say that for a few days before the madness came on the family had suffered from diarrhœa, and thence they conclude that either by accident or intentionally they have been the victims of poison. The doctors called to the patients have declared this to be a case of sympathetic lunacy. The inhabitants of the village of Andoville say this terrible event has been brought about by the remedies of a quack."

"SOUTH AFRICA AS A FIELD FOR MEDICAL PRACTICE."

To the Editor of THE LANCET.

SIR,—In answer to inquiries relative to South Africa as a field for medical practice, in your issue of Jan. 28th, I can speak from some experience on the subject, having paid two separate visits to the colony, and being personally acquainted with many medical men practising in all parts of the colony. South Africa is a very large place, and there is no place in which practice differs more both in quality and quantity, according to the locality selected. Nor is this all. Africanders have an idea that the medical men who go out to settle among them are the refuse of home produce, and unless a man has superior qualifications, such as M.D. Lond. or F.R.C.S., or settles in a remote part of the country, they are chary in seeking his advice.

In Cape Town there are already some forty medical practitioners, many of whom I know are by no means flourishing, and the scale of fees is certainly not high, half-a-crown for a visit and medicine being common. In Port Elizabeth, Durham, and Maritzburg—and, in fact, all the large towns—a similar state of things exists. I do not believe that in any of the places named there is any good opening for fresh comers; they are already overstocked. At Kimberley, where certainly the most money is to be made in the whole colony, there are several doctors possessing London degrees and in large practice; still I believe there are crumbs to be picked up here both in practice, in money lending, and speculations, all of which occupations are carried on by the medicals of the place—in fact, they make more by the latter than by their profession. But the place is dreariness itself; there is no society. Expenses are enormous (I have known 7*s.* 6*d.* to be given for a cabbage), and altogether life is scarcely worth living for except money making, which is the sole aim of all the inhabitants. At the Somersets and Beauforts there are already as many men as the places can support. But if your correspondent does not mind isolation and seclusion of the most perfect kind, with no one but Boers and Kaffirs as neighbours for miles, plenty of hard work (often fifty-mile rides) in the roughest of country, lack of good provisions, and risks, such as the sudden death of all his horses in one night, which is very common, I believe in such districts as I describe there is still money to be made. The day when men went out to South Africa and made fortunes in a few years is passed; the inhabited parts are overstocked, and unless a man settles in these with the best qualifications or proficiency in some speciality—e.g., ophthalmic surgery, and can afford to wait, I think he will consult his own interests best by remaining at home.

I am, Sir, yours truly,

Hampstead-road, N.W., Jan. 30th, 1882. JAS. S. MCDONAGH.

Mr. McDowell.—Application should be made to the Registrar of the General Medical Council.

THE "DEATH UNDER CHLOROFORM" AT PENDLEBURY.

To the Editor of THE LANCET.

SIR,—Mr. Graham's letter in Saturday's LANCET reminds me of a similar case in which I believe I saved the anæsthetic from the opprobrium of causing death by substituting alcohol for chloroform. The case occurred when I was resident medical officer to the Royal Alexandra Hospital for Sick Children, Brighton. It was one of hip-joint disease in a girl thirteen years of age. Amputation at the hip-joint was decided upon as the patient's one chance. Foreseeing that in the patient's weak state she would probably die from the shock of so grave an operation, and fearing that if it happened on the table the chloroform would at any rate come in for some (and justly so) of the blame, and, with Mr. Whittle's (the operator) consent, I procured some pure absolute alcohol, under the inhalation of which, having first partially anæsthetised the patient with chloroform, the operation was performed. From the first administration of the alcohol there was a marked improvement in the pulse, which was kept up throughout the operation—that is to say, so long as the alcohol was being administered. Esmarch's bandages were also applied to both legs before the operation, and kept on the sound one after the removal of the other. Next to no blood was lost. The patient died three or four hours after her removal to the ward, and after having quite recovered from the anæsthetic, instead of on the table, as I firmly believe she would have done had chloroform only been administered. The application of the double Esmarch no doubt helped the alcohol, but alone would not I think have proved sufficient to counteract the immediate effect of so large an operation on one so weak.

Hoping that the above case may induce others under similar and more favourable circumstances to try the inhalation of alcohol, I am, Sir, yours very truly,

Bradford, Jan. 30th, 1882. W. GILCHRIST BURNIE.

"A GRIEVANCE."

To the Editor of THE LANCET.

SIR,—I hope the timely letters of remonstrance from "M.B., B.S. Lond.," that have appeared in recent issues of THE LANCET, will receive that immediate attention from medical governors of hospitals that their subject matter (in the public interest) deserves.

It is an absurdity that in many provincial hospitals M.R.C.S.'s (a portion of the appointment question that has not been touched upon by "B.S.") are qualified to offer themselves as candidates for any surgical appointment that may occur, although they do not hold any guarantee that they possess any special knowledge or skill in operative surgery, where their principal duty would be to know how and when to operate, whilst gentlemen holding degrees in surgery from universities such as the London and Irish universities, obtained only after a searching and practical examination in both clinical and operative surgery, the severity of which test is shown by the percentage of rejections—for instance, only 10 per cent. of the medical undergraduates of the Queen's University in Ireland obtain the M.Ch.; moreover, to hold a B.S. or B.Ch. does not only indicate a special knowledge of surgery, and limited to that, like the F.R.C.S. by examination, but it carries with it the additional fact that the B.S. or B.Ch. is also a graduate in medicine—are debarred by an unwise and antiquated hospital rule, framed probably at the instigation in bygone days of some ancient local M.R.C.S., knowing some anatomy, a little physiology of the solids, liquids, and gases, or earth, fire, and water, school, and such medicine as would appertain to the holder of the mystic letters L.S.A., Blackfriars shop, from which Society he also probably acquired the trading instincts of selling his medicine to the detriment of his local rivals, the druggists. The rules relating to hospital surgical appointments should run thus in my opinion :—That any gentleman be eligible to officiate as surgeon or assistant-surgeon to a hospital, provided he is a graduate in surgery of a British university where there is a practical examination in operative surgery, or is an F.R.C.S. by examination. If this rule were observed, it would do away with the anomaly of having to obtain diplomas in surgery from two examining bodies—the second generally inferior to the first—in order to be an eligible candidate, and remove perhaps some of that insular prejudice which is born of ignorance and bred by trade unionism that unhappily remains in regard to professional qualifications.

I am, Sir, yours faithfully,

Jan. 22nd, 1882. M.D., M.CH.

To the Editor of THE LANCET.

SIR,—Your correspondent, "Nil nisi Bonum," attempts to grapple with the remarks of previous correspondents in such a manner that it is very clear he did not understand the point at issue. "Nil nisi Bonum" speaks as if he personally was being publicly anathematised, whereas it is merely one little letter which he affixes to his name, concerning which I and others object.

The question is, considering that the degree of M.B., B.S. Lond. is at all events equal in merit to that of M.B., C.M. Scotland, is it just that the great majority of English hospital surgical appointments are open to the graduates of the Scotch Universities, and not to those of the London University, merely because the Scotch Universities bestow a "Mastership in Surgery," whilst only a "Bachelorship" is given in London for the same standard?

Many an M.B., B.S. Lond. finds out this to his cost when he thinks that now, after seven or eight years' hard study, he will at last be able to make a living and get good appointments, only to find that his juniors, having chosen Scotland as an easier road to glory, get appointments over his head, having got the higher degree. As about 300 or 400 M.B., C.M.'s graduate yearly, and only about ten M.B., B.S.'s, you will perceive how many of the former are liable to swoop down upon any solitary M.B., B.S. who may happen to be a candidate for the appointment. The above numbers also tend to show the comparative difficulties of the examination.

I am, Sir, yours faithfully,

Jan. 28th, 1882. M.B., B.S. LOND.

General Practitioner.—Yes; the spring should not be strong, and on no account should the truss so press upon the swelling as to cause any pain.

R. E. Dudgeon, M.D.—We regret that we cannot find space for Dr. Dudgeon's letter, which does not materially differ from his letter inserted a few weeks ago.

A Subscriber for 24 Years.—The titles are not warranted by the qualifications mentioned. They should not be used or sanctioned in any public institution.

A DISADVANTAGE OF THE FACILITIES OF LOCOMOTION TO THE GENERAL PRACTITIONER.

To the Editor of THE LANCET.

SIR,—A patient can now for ailments that a general practitioner used to be consulted on take the train to the nearest large town, consult a specialist or one of the leading men, have a prescription written, which he takes to a chemist and has dispensed. The consequence is that the general practitioner is being gradually deprived of a large amount of his practice. The only means of obviating this I think would be for the consultant on no consideration to receive the prescription from the physician or surgeon consulted. The prescription or directions to be sent to the medical practitioner selected by patient only.

I am, Sir, yours truly,

Jan. 15th, 1882. A SUBSCRIBER OF TWENTY YEARS' STANDING.

"THE SALICYLATES IN THE TREATMENT OF RHEUMATISM."

To the Editor of THE LANCET.

SIR,—There are two deeply important practical questions which it seems to me to have not been sufficiently noticed, considering their importance, in the late discussion on the use of the salicylates in rheumatism: 1st. Is salicin and its compounds a "specific" *for* rheumatism? 2nd. What are the best methods of exhibiting the drug?

With regard to the first question, I can, I think, furnish a perfectly new fact against the doctrine that the remedy is anti-rheumatic. While engaged with my father in examining the saliva in different diseases, we found that the sulpho-cyanides are in great excess in the saliva of all cases of acute or subacute rheumatism; and, furthermore, that whether the salicylate, the alkali, the expectant, or any other treatment were adopted, in every case the results furnished by the saliva were the same. The quantity of the sulpho-cyanides present slowly and steadily diminished, till at the end of about the third week or so they became normal in amount. Now, I take it this is a most important fact, and a most powerful argument that acute rheumatism is a disease which runs a perfectly definite and regular course, quite uncontrolled as to its duration by any of the above forms of treatment, whence it follows that salicin and its compounds do not specifically antidote the rheumatic poison, if I may so express it.

Secondly, it being admitted, as it must be by all men, that the salicylates are most valuable remedies, how are they to be used to the greatest advantage and the least detriment to the patient? I will not presume to offer a long table or elaborate statistics on this question; I will simply state a few practical facts. While watching the careful and exhaustive experiments made in 1877-8 with the salicylates at the Bethanien Hospital in Berlin, I was led to the belief that their main action was to remove pain, lessen effusion, and lower the temperature; and that the safest and most successful *modus operandi* was the following: After a free purge, to give an adult twenty grains of salicylate of soda every hour for six hours, and then to suspend the medicine altogether. Further experience led me to add digitalis and brandy to each dose of the soda compound if the heart sounds were feeble or even dull, and to suspend the treatment altogether for a time if vomiting or faintness occurred. I have since treated about thirty cases of acute or subacute rheumatism on this plan, the invariable result being perfect relief from pain generally within twelve hours, a rapid fall in temperature, and a rapid disappearance of joint effusion. At first the cases used to relapse, but as soon as the following after-treatment was adopted the relapses became extremely rare. About twelve hours after the salicylate was dropped a mixture containing half-drachm doses of citrate of potash was given every six or eight hours till the saliva became alkaline to test paper. The patient was kept in bed for about a fortnight, and kept in-doors for about ten days longer. As soon as the saliva became alkaline, and not till then, the diet was gradually raised. I am well aware that the above detailed line of treatment is widely different from that generally followed, but I have found it give invariably good results, and quicker and better and more certain results if reasonable care be exercised than I have seen follow other modes of exhibiting the drug. As to the diet I may mention one further practical point. It may, of course, be mere prejudice, but I never allow a case recovering from acute rheumatism to have eggs. I do not profess to know how or why eggs should have a baleful influence on rheumatism, but I do know from repeated observation that many rheumatic fever cases relapse when eggs are added to their diet. Finally, one word with regard to cardiac complications. I cannot give accurate figures, but I have devoted some little attention to the subject, and am firmly convinced that pericarditis at any rate is much less frequently found now than five or six years ago. Whether this be due to the salicylates I know not, but of the great practical fact I am certain.

I am, Sir, yours truly,

West-street, Finsbury-circus, E.C., Jan. 28th, 1882. BEDFORD PENWICK.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Professor Gamgee, Birmingham; Sir H. Thompson; Professor Marshall, London; Dr. Edgar Sheppard, London; Dr. Thin, London; Dr. Tandy, Haverhill; Dr. Kinsey Morgan; Dr. Renner, London; Mr. Bellamy, London; Mr. Harding, London; Mr. Brown, Worcester; Dr. Cockle, London; Mr. Carter, Plymouth; Dr. Squire, London; Mr. Reginald Harrison, Liverpool; Mr. Judge, London; Mr. Mason, Pontypool; Dr. Sturges, London; Dr. Makuna, Fulham; Fleet Surgeon Hadlow; Dr. Littlejohn, Edinburgh; Dr. Trombetta, Messina; Dr. Bedford Fenwick, London; Dr. Manson, Amoy; Mr. Royes Bell, London; Mr. Burnie, Bradford; Mr. Marsh, Weston-super-Mare; Mr. Brown, Luton; Messrs. Fletcher and Co., Holloway; Mr. Barnardo, London; Mr. Haggard, London; Major Gosset; Dr. Bell, Glasgow; Dr. Reid, Newbiggin; Mr. T. H. Walker, Longtown; Dr. Kennedy, Demerara; Dr. Dudgeon, London; Mr. C. Roundell, London; Dr. Bennett May, Birmingham; Dr. Fly Smith, London; Mr. Callender, Dunscore; Mr. McDonagh, London; Mr. Jelley, Totnes; Dr. Waters, Liverpool; Dr. Howlett, Manchester; Dr. Roberts, Salisbury; Dr. Joy, Boston; Mr. Reid, London; Mr. Bunting, Snenton; Messrs. Edis and Cooper, Huntingdon; Dr. Herbert Stowers, London; Dr. Cousins, Portsmouth; Mr. Wheale; Dr. Cassells, Glasgow; Mr. Jelland, York; Mr. Richardson, Bryngwg; Mr. Jelland, York; Dr. Shuttleworth, Lancaster; Dr. Stocker; Dr. Woodward, Malvern; Mr. Hamilton Hoare, London; Messrs. Harrison and Brass, Elgin; Dr. Ewart, London; The Secretary, University College Hospital; M.D.; L. V.; G., Tooting; Surgeon, Bristol; A. R., Crumlin; A. B.; Veritas; M.B., B.S. Lond.; Country Doctor; Vienna; Expectans; An Old Correspondent; Coventry; M.R.C.S.; Fact; A. B. B.; A General Practitioner; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Taylor, Buxton; Captain Blount, Chelsea; Mr. Park, New South Wales; Mrs. Ganning, Tooting; Dr. Garton, St. Helens; Messrs. Simpson and Jackman, Coggeshall; Dr. Davies, Bryngolwg; Mr. Anderson, Loftus-in-Cleveland; Messrs. Mottershead and Co.; Mrs. Morris, Ramsgate; Mrs. Iles, Fairford; Dr. Thompson, Blisworth; Mr. Dann, Crick; Messrs. Hall and Palmer, Newtown; Mr. Harrick, Wisbeach; Mr. Woodcock, Bradford; Mrs. Smith, Wimbourne; Mr. Fulton, Toronto; Mrs. Ravenhill, Croydon; Messrs. Kerr and Co., London; Mr. Beaman; Messrs. Macmillan and Co., Cambridge; Messrs. Lee and Nightingale, Liverpool; Dr. Magloni, Dublin; Mr. Harrison, London; Mr. White, London; Dr. Taylor, Ainsworth; Mr. Bryan, London; Mr. Jones, Kingston-on-Thames; Mr. Kelsar, Plymouth; Mr. Hinde, Wolverhampton; Mr. Williams, Williton; Mr. Bedingfield, London; H., Woodstock; Christian; K. P., Huddersfield; Alexander; Principal, Seaford; Surgeon, Manchester; Surgeon, Shepherd's-bush; E. P., Carmarthen; Dr. B., Dalston; Dr., Liskeard; M. B., Plaistow; Assistant, Burton-on-Trent; Surgeon, Kentish-town; Marcellus, London; Owner, Kensington; H., Westgate-on-Sea; X. Y. Z., Southampton; Alpha, Mansfield; A. B. S., Devonport; Fides; D. B.; N. E.; Medicus, Birchingchampton; Alpha, Cradley-heath; A. B., Newbury; E. F.; H. B., Haverstock-hill; Z. Y. X.; M.D., Manchester; Iota; Salus; Medicus, Southsea; P. F.; &c., &c.

Bath Chronicle, Oracle, Scotsman, Salisbury and Winchester Journal, Eastern Morning News, Hull Express, Hull News, Glasgow Herald, The Walsall Free Press, South Durham and Cleveland Mercury, Manchester Examiner, Kentish Gazette, Hampshire Independent, House and Home, Vaccination Enquirer, &c., have been received.

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